行政院國家科學委員會補助專題研究計畫 ■成果報告
□期中進度報告

台灣華語：書目、語料庫與教學參考語法—
台灣華語中的分類詞：
語料庫、書目與詞彙功能語法分析

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共同主持人：
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附件二

國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

■ 達成目標

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□ 實驗失敗

□ 因故實驗中斷

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說明：

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以500 字為限）

分類詞與量詞是否能精準的區分一直存有爭議。贊成區分的學者所提出的兩個測試：「「的」插入法」與「形容詞修飾法」，已被證實缺乏準確性。本文深入檢視此二測試法，進而提出兩組精確且真實可靠之測試。並且運用亞里斯多德對於「本質特徵、偶然特徵」、以及康德對「分析命題、綜合命題」之區分，適切地描繪出「分類詞、量詞」之區辨。由於量詞具有實質之語義，因此阻絕了數詞及形容詞對名詞的修飾；相對的，分類詞僅彰顯名詞本身既有之某些語義特徵，並不貢獻任何額外的語義，因此數詞及形容詞可穿透分類詞而修飾名詞。

對於數詞（Num）、分類詞與量詞（C/M）、名詞（N），如「三匹馬」或「三箱書」，三者之間的結構，先前的看法可分三種，一是〔Num C/M〕先形成詞組，二是〔C/M N〕先形成詞組、三是兩種結構都需要。本文主旨在於論證〔Num C/M〕的結構不僅能捕捉 C/M 兩者之間的共通性（例如兩者在數學上均可解讀為被乘數，其質分別為 l 與 ¬l），同時在類型學上也能完整解釋〔Num C/M N〕在語言中存在的四種詞序；相形之下，另外兩種看法均會產生過度生成（overgeneralization）與生成不足（undergeneralization）的缺失。本文並在詞彙功能語法（Lexical-Functional Grammar, LFG）的理論架構下對漢語分類詞與量詞做出形式分析。C/M 兩者的詞組結構（c-structure）相同；但其功能結構（f-structure）不同：分類詞與 N 同為中心語（co-heads），在此也表現出分類詞如何彰顯（profile）N 的某項本質特徵，而量詞的功能則是 N 的 QUANTIFIER。

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On the Semantic Distinction between Classifiers and Measure Words in Chinese*

One-Soon Her and Chen-Tien Hsieh
National Chengchi University

Whether classifiers (C) and measure words (M) can be meaningfully distinguished in Chinese has been a controversial issue, reflected also by the drastic discrepancy in the inventories of classifiers previously proposed. The two tests, i.e. *de*-insertion and adjectival modification, that proponents for the C/M distinction proposed have been shown to be unreliable and thus rejected. We re-examine these two tests closely and propose two sets of refined, reliable, and revealing tests. We further employ the Aristotelian distinction between essential and accidental properties as well as the Kantian distinction between analytic and synthetic propositions to characterize the C/M distinction. M is therefore semantically substantive and thus blocks numeral quantification and adjectival modification to the noun; C, in contrast, does not form such a barrier, for it is semantically null in the sense that it merely highlights a semantic aspect inherent to the noun and thus contributes no additional meaning.

Key words: classifier, measure word, essential property, analytic proposition

1. Introduction

The classifiers this paper is concerned with are often referred to as 'numeral classifiers' because they are required to co-occur with numerals (e.g. Aikhenvald 2003:2). More specifically, it focuses on the so-called sortal classifiers. Such classifiers have lexical meanings in that classifier selection is based on certain intrinsic properties of the noun referents (e.g. Allan 1977, C. Hsieh 2009). Greenberg (1990[1975]:227) in fact claims that, in classifier languages, a numeral first forms a unit with a classifier, which in turn forms a unit with the noun. The fixed word order in a nominal phrase in Mandarin Chinese, a typical classifier language, is [(D)-NUM-CL-(N)], where a

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semantically compatible classifier or measure word must be employed before the noun when a numeral is present (e.g. M. Hsieh 2008, Tang 1990).

Previous studies of Mandarin classifiers, however, have come up with very different inventories, ranging from as many as six hundred (Hu 1993), four hundred and twenty-seven (Huang & Ahrens 2003), two hundred (Hung 1996), to as few as just several dozen (Erbaugh 1986); as noted by Liang (2006:17), this drastic discrepancy arises primarily from the dispute over what counts as a 'classifier'. It is uncontroversial that besides sortal classifiers, as in (1a), there are mensural classifiers, as in (1b) (e.g. Chao 1968, Allan 1977, Loke 1983, C. Hsieh 2009). The former subcategorizes objects with reference to their intrinsic properties, while the latter measures the quantity (e.g. Liang 2006, C. Hsieh 2009). However, they do seem to occupy the same slot and are mutually exclusive, as shown in (1c-d).[1]

(1) a. 一 本 書 (Sortal classifier)
yi *ben* *shu*[2]
one C book
'one book'

b. 一 箱 書 (Mensural classifier)
yi *xiang* *shu*
one box book
'one box of books'

c. *一 箱 本 書
yi *xiang* *ben* *shu*
one box C book

d. * 一 本 箱 書
yi *ben* *xiang* *shu*
one C box book

However, measure words are a mundane part of all natural languages, but sortal classifiers uniquely set apart the small number of classifier languages like Chinese and Japanese.[3] Tai (1994) thus points out the significance of this distinction from a typological point of view. We shall hereafter reserve the term *classifiers*, or C for short,

[1] However, we shall demonstrate in §2.3 that this is not the real picture and that they are not mutually exclusive and thus do not occupy the same slot.

[2] Hanyu Pinyin is used in the paper for transcription.

[3] Such classifier languages include most Southeast Asian languages, indigenous languages of western Americas, and Sub-Saharan African languages (Nichols 1992:200).

for sortal classifiers only, and refer to mensural classifiers as *massifiers* or *measure words*, or M in short.[4] We shall argue in the paper that the C/M distinction is real and it is crucial. The paper is organized as follows. Section 2 first justifies two sets of tests that serve to distinguish C and M. Section 3 then offers a precise semantic characterization for C and M. Section 4 concludes the paper with a summary.

Note that, unlike most previous studies on Mandarin classifiers, this study uses only data from a single dialect, Taiwan Mandarin (cf. Cheng 1985, Hsu 2006, Her 2009). All grammaticality judgments are thus based on native speakers from Taiwan and corpus data are from the Sinica Corpus and Google searches in the Taiwan domain.

2. Tests for the distinction between C and M

In this section, we shall first briefly review some of the formal syntactic analyses for C/M and then establish the count/mass distinction in relation to the C/M distinction, followed by a review of the two previous tests for the distinction of C as a distinct category from M. We shall offer three precisely formulated tests for the C/M distinction.

2.1 Formal syntactic analyses

In terms of the formal syntactic structure involving C and M, there are two opposing views in recent studies. Tang (2005) and M. Hsieh (2008) consider C and M to be syntactically alike and offer the same structure analysis. Thus, in (2a), Tang (2005) has both C and M as the head of a classifier phrase (ClP), while M. Hsieh (2008) likewise has either C or M as #, the head of a #P.

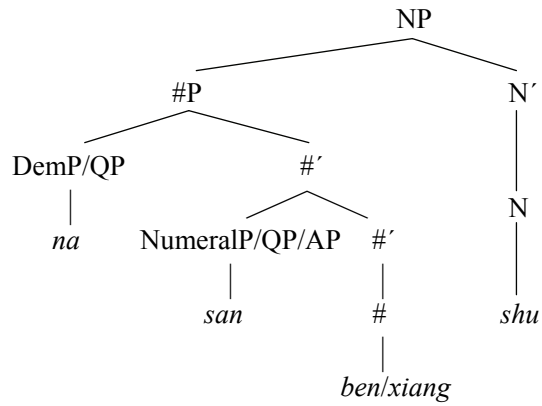
(2) a. $[_{DP}\ldots[_{NumP}\ldots[_{ClP}\ldots[_{NP}\ldots]]]]$

b.

三	箱/本	書
san	*xiang*/*ben*	*shu*
one	box/C	book

'three (boxes of) books'

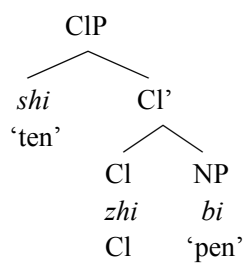
[4] Cheng & Sybesma (1998) is the first to use the term *massifier*, adopted also in M. Hsieh (2008).



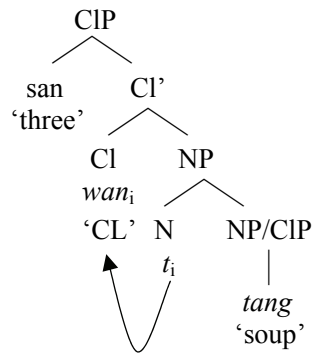
Such a unified analysis certainly explains why C and M occupy the same syntactic slot and are mutually exclusive. However, we shall demonstrate in §2.3 that this is not the real picture and that M in fact is structurally more prominent than C. Also, note crucially that even some of the proponents of the unified analysis, i.e. Tang (2005) and M. Hsieh (2008), acknowledge the count/mass distinction: C can only select count nouns, while M can occur with either count or mass nouns.

Though a unified analysis, even if justified, is not necessarily detrimental to our position that C and M are cognitively and semantically distinct, assigning C and M to different syntactic slots is certainly more conducive. This is precisely what Cheng & Sybesma (1998, 1999), Borer (2005), Watanabe (2006), and N. Zhang (2009) argue for. C, according to Cheng & Sybesma (1998, 1999), is base-generated as the head of ClP, as in (3a), while M, as shown in (3b), is based-generated under N and then moves upward to C. N. Zhang (2009), on the other hand, contends that C is base-generated as the head of SortP and can move up to Q, the head of QP and also where M is base-generated, as shown in (4).

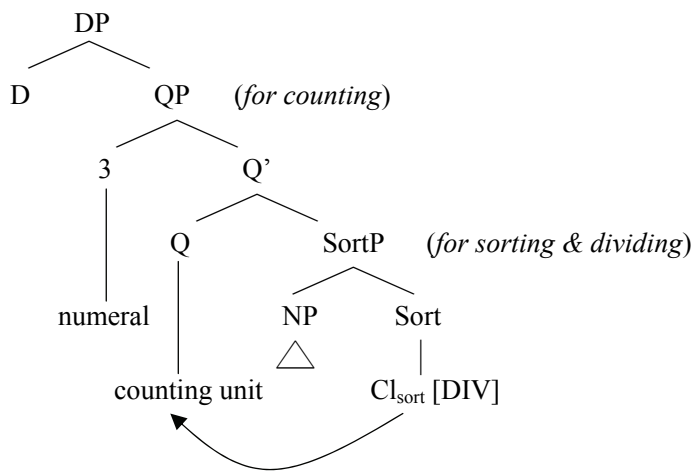
(3) a. 十 枝 筆
shi *zhi* *bi*
ten C pen
'ten pens'



b. 三 碗 湯
san *wan* *tang*
three bowl soup
'three bowls of soup'



(4)



In either account, C eventually ends up in the same position as M, and thus also explaining why C and M occupy the same syntactic slot and are mutually exclusive. Again, this may be incorrect, as we shall demonstrate in §2.3. We shall thus no longer be concerned with the debate over the formal syntactic analysis and move on to the count/mass distinction and syntactic tests for the C/M distinction.[5]

[5] For a critical review on the C/M distinction, see M. Hsieh (2008), and for a critical review of M. Hsieh (2008), see N. Zhang (2009).

2.2 Count/mass distinction

It has been widely observed that C is restricted to things perceived as inherently discrete, thus countable, as in (5), while measure words are not, as in (6) (e.g. Allan 1977, Loke 1983, Cheng & Sybesma 1998, 1999, W. Li 2000, Tang 2005, Liang 2006, M. Hsieh 2008, H. Zhang 2007, N. Zhang 2009, C. Hsieh 2009).

(5) 一 根 香蕉/*水
yi *gen* *xiangjiao*/*shui*
one C banana/water
'one banana/*water'

(6) 一 箱 香蕉/水
yi *xiang* *xiangjiao*/*shui*
one box banana/water
'one box of bananas/water'

In (5), the C *gen* denotes a discrete and elongated object, e.g. a *banana*, and thus rules out the mass noun *water*.[6] On the other hand, in (6), both the countable *banana* and the mass *water* can be contained in a box *xiang*, an M. Thus, the crucial difference is that the numeral *one* in effect quantifies the countable noun *banana* in (5), while it quantifies the countable M *box* in (6), not the noun *banana* or *water*. The count/mass distinction thus serves to distinguish C and M in that C, not M, fails to co-occur with mass nouns. Cheng & Sybesma (1999:515, 1998:403) are thus correct in stating that 'the count/mass distinction is clearly reflected in the classifier system'.

Tai (2003:312), however, contends that, in terms of the linguistic relativity hypothesis, there is no count/mass distinction in classifier languages, where all nouns can be treated as mass, and this is reflected in the fact that nouns in Chinese are not inflected for plurality,[7] cannot be counted without the accompaniment of classifiers, and can be either definite or indefinite when standing alone. He thus concludes that 'nouns in classifier languages denote materials or substances, non-discrete and unbounded, while in English and other European languages, they denote objects with discrete boundaries'. The weaker version of Tai's claim, i.e. that count nouns *can* be interpreted as mass nouns, is in fact not necessarily inconsistent with the conventional view, e.g. in Cheng & Sybesma (1998) and Tang (2005), which *can* be interpreted as: M does not

[6] Likewise, it should also rule out count nouns that do not have a compatible inherent feature.

[7] Y.-H. Li (1999) argues that the *-men* suffix in Chinese is indeed a plural morpheme; however, Iljic (1994) contends that it indicates collectivity. We thank an anonymous reviewer for the latter reference.

distinguish between count and mass nouns, while C requires count nouns. Take (6) for example: while the most natural reading of *yi xiang xiangjiao* is 'one box of bananas', where the boxful of bananas comes in the natural discrete units of banana, it is possible, though not probable, to have another reading where what is contained in the box is bits or pieces of banana or even mashed banana. In this second reading, *banana*, like *water*, is substance or material, and the measure word *xiang* serves to 'carve out', or 'parcel' (in Au Yeung's (2007) terminology) the volume of a *boxful* from the banana or water mass. Thus, conceptually, the count/mass distinction does not exist, but only for M under such a reading.

However, the stronger version would mean that nouns in Chinese *always* denote mass, never discrete units. This seems to be the position upheld in Chierchia (1998), who contends that Chinese is a *kind*-denoting language, where common nouns must denote mass properties and thus can only be counted with the aid of an imposing classifier. In *object*-denoting languages, e.g. English, common nouns can denote discrete units and can be quantified by a numeral without a classifier. Under this interpretation, the C/M distinction also does not exist as they now function exactly the same: both serve to 'carve out' discrete, bounded units from substance or material. This view cannot be sustained. Take (5) for example. Under this view, *xiangjiao* 'banana' can only refer to the banana mass, and the reading of a natural unit of banana with peel is only accidental and due to the classifier *gen*, which 'carves out' an elongated discrete unit. This view thus predicts that (5), besides this natural reading, can also mean an elongated unit of bits or pieces of the banana substance or mashed banana. Such a reading is simply impossible. Tai & Wang (1990:38) characterize the C/M distinction as follows:

> A classifier categorizes a class of nouns by picking out some salient perceptual properties, either physically or functionally based, which are permanently associated with entities named by the class of nouns; a measure word does not categorize but denotes the quantity of the entity named by noun.

According to this characterization, in Chinese there are natural classes of nouns that name entities which come in discrete countable units and such properties are indeed permanently associated with these nouns. The example in (7) should drive this point home.

(7) 一 個 新 汽車
yi *ge* *xin* *qiche*
one C new car
'one new car'

The generic classifier *ge*, unlike *gen*, only serves to highlight the intrinsic discreteness of the thing in question and does not indicate shape, function, animacy, or any other semantic feature. Cars, especially those newly produced by automobile manufacturers come in naturally countable units and a forced reading of one newly and randomly assembled unit out of the car mass is not available. Nouns in Chinese that similarly denote entities with 'inherent' and 'permanent' properties, to quote Tai (1994:3), of being discrete units are count nouns; otherwise, mass nouns.[8]

The count/mass distinction thus serves as an indication to the C/M distinction. Here is the rule of thumb. Given a noun denoting an intrinsically discrete object or, as we shall demonstrate later, something abstract but perceived to be intrinsically discrete (e.g. *jiaoyi* 'business transaction' and *guiding* 'regulation'), the single bare element required between a numeral and this noun is either C or M; if this element is only grammatically required in the counting of the natural unit of the noun and therefore contributes no additional semantic value to the phrase, it is a C; otherwise, it is an M. As seen in (7), the generic classifier *ge* contributes no semantic value to the compositional meaning of 'one' and 'car'.

2.3 Formal tests for the C/M distinction

There have been two well-known syntactic tests for the C/M distinction: adjective insertion and *de*-insertion. Given the on-going controversy, it is not surprising that both tests have been rejected by opponents to this distinction. However, we shall demonstrate that both tests can in fact be made much more accurate, and thus reliable. The two tests can ultimately be unified under the observation that M blocks numeral quantification and adjectival modification to the noun, while C does not. Finally, *ge*-substitution will be introduced as a heuristic for C/M distinction.

Test A: Adjectival Modification

Cheng & Sybesma (1998:390) claim that only M—and not C—can be modified by some bare adjectives, as shown in (8a) and (9) respectively. However, note that the bare adjectives allowed for M are in fact also strictly restricted to size (e.g. *da* 'big' and *xiao* 'small') and fullness or wholeness (e.g. *zheng* 'whole', as indicated by (8b)). We note further that even this highly restricted set of bare adjectives does not necessarily apply to all members of M, as shown in (8c). In other words, Cheng & Sybesma (1998) could

[8] Our position is thus more compatible with Borer's (2005) universalist view that all nouns in *all* languages are mass. In languages like Chinese, the use of classifiers turns a noun to a count noun; whereas in non-classifier languages like English, plural inflections are used for the same purpose.

thus only have meant for this to be a sufficient, but not necessary, condition for M.

(8) a. 一 小/大 箱 書
yi ***xiao/da*** ***xiang*** *shu*
one small/big box book
'one small/big box of books'

b. *一 紅/美 箱 書
yi ***hong/mei*** ***xiang*** *shu*
one red/pretty box book

c. *一 小/大 磅 書
yi ***xiao/da*** ***bang*** *shu*
one small/big pound book

(9) a. *一 小/大 隻 狗
yi ***xiao/da*** ***zhi*** *gou*
one small/big C dog

b. *一 紅/美 隻 狗
yi **hong/mei** ***zhi*** *gou*
one red/pretty C dog

However, though confirmed by some linguists, e.g. Liang (2006) and Tsai (2003), some of the native speakers we consulted do find (9a) acceptable and counter-examples to this test are acknowledged even by Cheng & Sybesma (1998) themselves, albeit in a footnote, and have been subsequently corroborated by many others, e.g. Tang (2005), M. Hsieh (2008), and N. Zhang (2009). Tang (2005) and M. Hsieh (2008) in fact utilize Taiwan Mandarin examples from the Sinica Corpus. Our own Google searches in the Taiwan domain have also come up with numerous [Adj-C] examples. For instance, there are 20 and 161 exact matches of (10a) and (10b) respectively.[9]

(10) a. 一 大 顆 蘋果
yi ***da*** ***ke*** *pingguo*
one big C apple
'one big apple'

b. 一 大 本 書
yi ***da*** ***ben*** *shu*
one big C book
'one big book'

[9] Data accessed on November 12, 2009.

This clear evidence is enough for even the proponents of C/M distinction, e.g. N. Zhang (2009), to write off this test as unreliable. However, we note a crucial difference here between C and M. As pointed out earlier, the pre-C numeral in effect quantifies the noun together with the C, while a pre-M numeral only quantifies the M itself, not the noun. Thus, concurrent numeral quantification at M as well as at the noun via a C, as in (11a), or stacking of M, as in (11b), is perfectly fine. However, comparable cases for C are entirely nonsensical, as in (12a-b). The concurrent M and C in (11a) also clearly indicate that C and M are not mutually exclusive as previously assumed, and M is in fact structurally more prominent than C.[10]

(11) a. 一 箱 十 顆 蘋果
yi ***xiang*** ***shi*** ***ke*** *pingguo*
one box ten C apple
'one box of ten apples'

b. 一 箱 十 包 蘋果
yi ***xiang*** ***shi*** ***bao*** *pingguo*
one box ten pack apple
'one box of ten packs of apples'

(12) a. *一 個 十 顆 蘋果
yi ***ge*** ***shi*** ***ke*** *pingguo*
one C ten C apple

b. *一 個 十 包 蘋果
yi ***ge*** ***shi*** ***bao*** *pingguo*
one C ten pack apple

Like the limited scope of quantification, a pre-M adjectival modification has only M as its scope, while a pre-C adjective transcends the C and also modifies the noun.

[10] The examples in (11a-b) are noun phrases, rather than a clause (i.e. topic-comment structure), because both can appear as the subject or object in a sentence, as shown below. We thank the reviewer who raised the question.

(i) 他 給了 我 一 箱 十 顆 蘋果
Ta *gei-le* *wo* *yi* *xiang* *shi* *ke* *pingguo*
he give-ASP I one box ten C apple
'He gave me one box of ten apples.'

(ii) 這 一 箱 十 顆 蘋果 夠 嗎？
Zhe *yi* *xiang* *shi* *ke* *pingguo* *gou* *ma*
this one box ten C apple enough Q
'Is this one box of ten apples enough?'

This fact is clearly illustrated in the English translations of (8) and (10), where the pre-C adjective in essence modifies the noun. Given the transcending modification of pre-C adjective, we can derive two precise predictions. First, adjectival modification on C is equivalent to that on N, as shown in (13b); M does not have this effect, as shown in (13a).

(13) a. 一 **大** 箱 蘋果 ≠ 一 箱 **大** 蘋果
yi ***da*** *xiang* *pingguo* *yi* *xiang* ***da*** *pingguo*
one big box apple one box big apple
'one big box of apples' 'one box of big apples'

b. 一 **大** 顆 蘋果 = 一 顆 **大** 蘋果
yi ***da*** *ke* *pingguo* *yi* *ke* ***da*** *pingguo*
one big C apple one C big apple
'one big apple' 'one big apple'

The second prediction is that stacking of antonymous adjectives is impossible for C, as shown in (15), as the apple cannot be big and small at the same time.[11] Yet, it is perfectly fine for M, as in (14), where the box is big while the apples are red/small.

(14) a. 一 **大** 箱 **紅/小** 蘋果
yi ***da*** *xiang* ***hong/xiao*** *pingguo*
one big box red/small apple
'one big box of red/small apples'

b. **大大的** 一 箱 **紅/小** 蘋果
dadade *yi* *xiang* ***hong/xiao*** *pingguo*
big one box red/small apple
'one big box of red/small apples'

(15) a. 一 **大** 顆 **紅/#小** 蘋果
yi *da* *C* ***hong/xiao*** *pingguo*
one big C red/small apple
'one big red/*small apple'

b. **大大的** 一 顆 **紅/#小** 蘋果
dadade *yi* *ke* ***hong/xiao*** *pingguo*
big one C red/small apple
'one big red/*small apple'

[11] Thus, the only coercible reading is that *xiao pingguo* is the name of a particular variety of apples and therefore the meaning of 'small' is opaque.

To conclude, while M blocks numeral quantification and adjectival modification to the noun, C does not. Thus, Adj-C is more restricted than Adj-M. Furthermore, given a well-formed Adj-C, the same adjective can be shifted to modify the noun without altering the meaning. Also, both numeral stacking and antonymous adjective stacking prove to be prudent tests. Test A is thus revised in much more accurate terms as follows.

Test A (revised): Numeral/Adjectival Stacking

Test 1: If [Num **X** Num **Y** N] is well-formed, then X = M, X ≠ C, and Y = C/M.

Test 2: If [Num A **X** N] = [Num **X** A N] semantically, then X = C and X ≠ M.

Test 3: Given antonyms A_1 and A_2, if [Num A_1 **X** A_2 N] is semantically incongruent, then X = C and X ≠ M; otherwise, X = M and X ≠ C.

Test B: *de*-insertion

Many linguists claim that *de* may be optionally inserted after M but not C, as shown in (16) (e.g. Chao 1968:555, Paris 1981:32, Zhu 1982:51, Tai & Wang 1990, Tai 1994, Cheng & Sybesma 1998:388, 1999:515, H. Zhang 2007:49).

(16) 一 箱/*本 的 書
yi *xiang*/*ben* *de* *shu*
one box/C DE book
'one box of/*C books'

Again, the real picture is far from being so clear-cut. Both opponents, e.g. Tang (2005) and M. Hsieh (2008), and proponents, e.g. N. Zhang (2009), to the C/M distinction have come up with plenty of well-formed C-*de*-N examples. M. Hsieh (2008) again cites examples from the Sinica Corpus, as shown in (17) and (18). Note that *de* does not change the meaning at all for either C or M.

(17) 五百萬 隻 的 鴨子
wubaiwan ***zhi*** ***de*** *yazi*
five-million C DE duck
'five million ducks'

(18) 幾百 條 的 海蛇
jibai ***tiao*** ***de*** *haishe*
several-hundred C DE sea-snake
'hundreds of sea snakes'

Again, the evidence seems rather obvious. Nonetheless, the intuition behind the observation that C-*de*-N is much more restricted than M-*de*-N is also reasonable: C and N merge as one unit semantically, while M and N form two separate entities; the C-N sequence is thus more resistant to *de*-insertion. Possessive *de* before a human noun reveals the same insight, as shown in (19) and (20). Note again the meanings remain the same with or without *de*.

(19) 我 (?的) 爸爸
wo *de* *baba*
I DE papa
'my papa'

(20) 我 *(的) 理髮師
wo *de* *lifashi*
I DE barber
'my barber'

The intimate kinship between me and my father is indicative to the resistance of *de* intervention; the much more distant relationship between me and my barber, on the contrary, much favors the separation of the two nouns by *de*. Thus, given this iconic value of *de*-insertion (cf. Chappell & Thompson 1992),[12] all is not lost for its use in C/M distinction. And indeed, as noted by Tang (2005), further corroborated by N. Zhang (2009), that, in a [Number-C-*de*-N] phrase, the lower the number, the less acceptable is the phrase. Thus, the higher the number, the more naturally *de* intervenes between C and N. This observation is certainly confirmed by M. Hsieh's two Sinica Corpus examples in (17) and (18), with *five million* and *several hundred* respectively. N. Zhang (2009) cites Croft (1994:163), Aikhenvald (2003:100), and Sato (2009:7) in noting that different properties between constructions with low and high numerals are observed in other languages as well and goes on to claim specifically that if the number is less than ten, then post-C *de* is ill-formed. This is confirmed by the examples cited in relevant literature and by our half dozen Taiwan Mandarin informants. However, our experiments also indicate that fractions of a number, including those with a value smaller than one, drastically increase acceptability. Google searches turned up 70 instances of 之一顆的 *zhi yi ke de* 'one fraction of', two of which are listed in (21).[13]

[12] Chappell & Thompson (1992) propose two principles governing the optional associative *de*.
(1) The closer the relationship between NP1 and NP2, the less likely *de* is to be used.
(2) The closer the relationship between NP1 and the *speaker*, the less likely *de* is to be used.
We thank the anonymous reviewer that provided this reference.

[13] Data accessed on November 12, 2009.

(21) a. 八分之一 顆 的 高麗菜
bafenzhiyi *ke* *de* *gaolicai*
one-eighth C DE cabbage
'one-eighth cabbage'

b. 四分之一 顆 的 洋蔥
sifenzhiyi *ke* *de* *yangcong*
one-eighth C DE onion
'one-eighth onion'

An explanation is attempted in Tang (2005:444), where numeral contrast is interpreted as a contrast in 'information weight', thus the higher the number, the higher its information weight. However, our data in (21) indicates that it is not the *absolute value* of the number that affects the 'weight'; rather it is the *computational complexity* that makes it 'heavy'.[14] Compare (22a) with (22b): *ban* 'half' and *yi* 'one' are similarly discrete and monosyllabic, but the latter is 'heavier' and thus better, with 20 exact Google matches, because it is computationally more complex than the former, with merely one single token found.[15]

(22) a. 半 顆 的 蘋果
ban *ke* *de* *pingguo*
half C DE apple
'half an apple'

b. *一 顆 的 蘋果
yi *ke* *de* *pingguo*
one C DE apple
'an apple'

The insight of information weight measured by computational complexity thus also predicts that any increased complexity of C itself should likewise increase the acceptability of *de*-insertion. The prediction is correct, as Adj-C-*de* with even the simplest number, one, is much better than bare C-*de*. Again, both examples in (23) are from Google searches, which gave 13 and 9 exact matches for each example respectively.[16]

[14] The term 'heavy' here is deliberate and relates nicely to Tang's (2005) use of 'information weight'. Also, the phenomenon under discussion here is surely reminiscent of the 'heavy NP shift' in English, where an ill-formed word order is allowed for a 'heavy' NP.
i. *I gave to Mary them/the flowers.
ii. I gave to Mary the flowers that I personally picked from the garden of my country cottage.

[15] Data accessed on February 22, 2010.

[16] Data accessed on November 12, 2009.

(23) a. 一 大 顆 的 高麗菜
yi *da* *ke* *de* *gaolicai*
one big C DE cabbage
'one big cabbage'

b. 一 大 條 的 魚
yi *da* *tiao* *de* *yu*
one big C DE fish
'one big fish'

Assuming further that Greenberg (1990[1975]:227), along with Paris (1981:105-117),[17] C.-T. Huang (1982), Lin (1997), and M. Hsieh (2005, 2008) (see the tree in (2b)), is correct that the numeral and C first form a constituent, say ClP, before merging with the noun, we can state with confidence that any increased computational complexity in ClP increases the acceptability of *de* intervention. But, why should it be any different for M, assuming that M likewise forms a constituent, say MP, first with the numeral? Recall our generalization earlier that M blocks numeral quantification and adjectival modification to the noun, but C does not. ClP is thus inherently more closely tied to N than MP and thus naturally more resistant to intervention by *de*. This insight therefore nicely unites Test A and Test B. Assuming that *one* is computationally the least complex number,[18] we can now restate Test B in much more restricted terms and much more accurately as follows.

Test B (revised): *De*-insertion
Test: [*yi* **M/*C** *de* N]

Test C: *Ge*-substitution

Tai & Wang (1990) and Tai (1994) propose that, for C/M distinction, if the element in question can be substituted by 個 *ge*, the generic classifier, without any loss in meaning, then it is C; otherwise, it is M.

(24) 三 **顆** 蘋果 = 三 **個** 蘋果
san *ke* *pingguo* *san* *ge* *pingguo*
three C apple three C apple
'three apples' 'three apples'

[17] We thank the anonymous reviewer that provided this reference.
[18] It certainly is not zero, the concept of which was developed much later in the number systems in all human languages.

(25) 三 箱 蘋果 ≠ 三 個 蘋果
san *xiang* *pingguo* *san* *ge* *pingguo*
three box apple three C apple
'three boxes of apples' 'three apples'

Note that *ge*-substitution does not have the same status as the previous two tests. Logically, before it can be used as a test for C, the C/M distinction needs to be made valid first, and then *ge* needs to be independently proven to be C. Both premises should be uncontroversial at this point of discussion. The reader is welcome to run the previous two C/M distinction tests on *ge*. However, it has its limitations, as many nouns require specific classifiers and do not readily take *ge*, except perhaps in casual or even sloppy speech (e.g. Erbaugh 1986, Hu 1993). *Ge*-substitution thus may serve only as a heuristic for C and is formulated as follows.

Test C: *Ge*-substitution
Test: If [Num **X** N] = [Num ***ge*** N] semantically,
then X = C and X ≠ M.

3. Semantic characterization of the C/M distinction

Having established three reliable tests for the C/M distinction, we shall now attempt to crystallize the semantic distinction between C/M. C classifies or categorizes nouns by highlighting some salient or inherent properties of the noun and thus contributes no additional meaning. M, on the other hand, plays a substantive role in denoting the quantity of the entity named by the noun. In §3.2, we demonstrate that this distinction also implies that C is a closed set and M an open set.

3.1 Aristotle and Kant

In *Metaphysics* Aristotle distinguishes between the essential features of a thing and its merely accidental features (Bostock 1994). Robertson (2008) offers this precise definition.

> *P* is an *essential property* of an object *o* just in case it is necessary that *o* has *P* whereas *P* is an *accidental property* of an object *o* just in case *o* has *P* but it is possible that *o* lacks *P*.

This characterizes the C/M distinction perfectly. A classifier picks out an essential property of the entity the noun denotes; in other words, it does not impart any information to the noun that it does not already have. For example, having a tail is part of what necessarily makes a fish. Thus, in (26), the classifier 尾 *wei* and 魚 *yu* 'fish' are compatible in that the latter has a tail as an essential property. The classifier clearly adds no information to the phrase and merely identifies this essential property, tail.

(26) 一 尾 魚
yi *wei* *yu*
one C fish
'one fish'

A measure word does just the opposite: it provides an additional property to the noun, a property that is accidental and thus not a necessary part of the entity denoted by the noun. In (27), the measure word 桶 *tong* 'bucket' thus furnishes additional information to the phrase, indicating that the fish are inside the bucket and mass the bucketful quantity, both accidental properties.

(27) 一 桶 魚
yi *tong* *yu*
one bucket fish
'one bucket of fish'

Along this lineage of philosophizing, we further recruit the analytic/synthetic distinction, which Kant was the first to introduce in the Introduction to the *Critique of Pure Reason*, to illustrate the C/M distinction. Here is Kant's definition, cited in Rey (2003), from which the examples are also obtained.

Analytic proposition: a proposition whose predicate concept is contained in its subject concept; e.g. *all bachelors are unmarried*.
Synthetic proposition: a proposition whose predicate concept is not contained in its subject concept; e.g. *all bachelors are happy*.

According to this distinction, what C contributes to the noun can only be paraphrased into an analytic proposition with the noun as subject and C itself as the predicate concept, while what M contributes can only be restated as a synthetic proposition. To illustrate, the C and M in (26) and (27) are now restated as (28) and (29), respectively.

(28) The fish has a tail.
(29) The fish are in the bucket and fill the bucket.

Having a tail is an essential property of fish and this predicate concept is thus contained in the subject concept in (28), which is thus an analytic proposition. Being in a bucket or filling the bucket is an accidental property of the fish and is thus not contained in the subject concept of (29), which is therefore a synthetic proposition. The above two distinctions thus illuminate Adams & Conklin's (1973:2) insight that classifiers 'qualify rather than quantify the head noun' and also confirm W. Li's (2000:1117) insight that 'classifiers are semantically redundant'. Thus, C serves to classify or categorize nouns by highlighting certain properties inherent to the noun. C is therefore semantically null, or redundant, in the sense that it contributes no additional semantic value that the noun does not already have. M, on the other hand, serves as an integral part, together with the numeral, in the quantification of the noun. Consider the data in (30) and (31).

(30) 五 個 餅 二 條 魚 = 五 餅 二 魚
wu ge bing er tiao yu *wu bing er yu*
five C loaf two C fish five loaf two fish
'five loaves and two fish'

(31) 五 餅 二 魚 ≠ 五 箱 餅 二 箱 魚
wu bing er yu *wu xiang bing er xiang yu*
five loaf two fish five box loaf two box fish
'five loaves and two fish' 'five boxes of loaves and two boxes of fish'

The example refers to the familiar story of Jesus feeding five thousand people with five loaves and two fish, and is commonly referred to in Chinese simply as the story of 五餅二魚 *wu bing er yu* '*five loaves and two fish*'. The fact that C, not M, can be dropped due to stylistic pressure attests to their semantic distinction: M contributes additional meaning to the noun; C does not. This semantic characterization thus also explains the C/M contrast in blocking numeral quantification and adjectival modification to the noun.

Having formulated three sets of reliable tests for the C/M distinction in §2, we can now give it a more precise semantic description. C refers to an essential property of the noun, which can be restated as the predicate concept in an analytic proposition with the noun as the subject concept; M refers to an accidental property of the noun in terms of quantity, which can be restated as the predicate concept in a synthetic proposition with the noun as the subject concept.

3.2 C a closed set versus M an open set

We have thus far demonstrated that C and M are similar in that syntactically they both serve as the required link between the numeral and the noun; however, semantically they are drastically different in that, while M contributes additional and unique value and thus serves as an integral part in the total semantic composition of the phrase, C does not. C is thus more of a functional device, while M is semantically substantive. C thus should constitute a closed set, like other grammatical devices, e.g. case markers, prepositions, etc., while M should be more of an open set.

Thus, C is resistant to innovations, while M is quite the opposite. As Adams & Conklin (1973) point out, 'essentially anything can function as the unit of measurement'. This indicates that common nouns can easily function as measure words, e.g. 一屋子人 *yi wuzi ren* 'a houseful of people' and 一卡車垃圾 *yi kache lese* 'a truckload of trash'. Many are created with body parts, e. g., 一肚子壞主意 *yi duzi huai zhuyi* 'a stomachful of malicious intentions', 一臉不悅 *yi lian buyue* 'a faceful of displeasure', and 一頭白髮 *yi tou bai fa* 'a headful of gray hair'.[19] All these innovative or temporary uses of common nouns as measure words indicates that M is an open set. C, on the other hand, allows no such innovations. Thus, it is plausible to attempt a comprehensive inventory of C only, while such an effort for M is not meaningful.

4. Conclusion

It has been an ongoing debate as to whether classifiers can be meaningfully distinguished from measure words in Chinese. The two tests, i.e. *de*-insertion and adjectival modification, proposed previously by proponents of the C/M distinction have since been discredited and rejected by opponents. In this paper, we have first established

[19] An anonymous reviewer questioned if Test 3 of Test A (i.e. occurrence of antonyms) is used to distinguish M from C, then the fact that *一黑頭白髮 *yi hei tou bai fa* '*a black headful of gray hair' is bad would mean 頭 *tou* here is C, not M as we claim. We thank the reviewer for this keen observation and note that, as pointed out earlier in the discussion of Test A: Adjectival Modification, the bare adjectives allowed for M are also strictly restricted to size, e.g. *da* 'big' and *xiao* 'small', and fullness or wholeness, e.g. *zheng* 'whole'. Thus, the ill-formedness of *一黑頭白髮 *yi hei tou bai fa* '*a black headful of gray hair' is due to the fact that 黑 *hei* 'black' is banned as a modifier to M (or C). In addition, the semantic incongruence is due to the fact that the actual color of the head is invisible as the head is covered by (gray) hair. So, *一白頭白髮 *yi bai tou bai fa* '*a gray headful of gray hair' is likewise bad. We further note that 一整頭白髮 *yi zheng tou bai fa* 'a complete headful of gray hair' is much better and does have 4 tokens in Google Taiwan.

the relationship between the count/mass distinction in nouns and the C/M distinction and then re-examined the precious two tests more closely. Based on the insight that M is semantically substantive and C is semantically null and thus M—not C—blocks numeral quantification and adjectival modification to the noun, we have refined the previous two tests and come up with much more reliable and accurate formulations. Likewise, we have stated *ge*-substitution as a heuristic.

Test A (revised): Numeral/Adjectival Stacking
Test 1: If [Num **X** Num **Y** N] is well-formed, then X = M, X ≠ C, and Y = C/M.
Test 2: If [Num A **X** N] = [Num **X** A N] semantically, then X = C and X ≠ M.
Test 3: Given antonyms A_1 and A_2, if [Num A_1 **X** A_2 N] is semantically incongruent, then X = C and X ≠ M; otherwise, X = M and X ≠ C.

Test B (revised): *De*-insertion
Test: [*yi* **M/*C** *de* N]

Test C: *Ge*-substitution
Test: If [Num **X** N] = [Num ***ge*** N] semantically, then X = C and X ≠ M.

In terms of semantics, we employ the Aristotelian distinction between essential and accidental properties as well as the Kantian distinction between analytic and synthetic propositions to characterize the C/M distinction. Precisely, C indicates an essential property of the noun, and can be paraphrased as the predicate concept in an analytic proposition with the noun as the subject concept; M indicates an accidental property in terms of quantity, and can be restated as the predicate concept in a synthetic proposition with the noun as the subject concept. Finally, given the above characterization, M can be demonstrated to be more of a content word, thus open to innovations, while C is more a function word, thus forms a closed set and is resistant to innovations.

References

Adams, Karen L., and Nancy F. Conklin. 1973. Toward a theory of natural classification. *Chicago Linguistic Society* (*CLS*) 9:1-10.

Aikhenvald, Alexandra Y. 2003. *Classifier: A Typology of Noun Categorization Devices.* Oxford & New York: Oxford University Press.

Allan, Keith. 1977. Classifier. *Language* 53.2:285-311.

Au Yeung, Ben Wai Hoo. 2007. Multiplication basis of emergence of classifiers. *Language and Linguistics* 8.4:835-861.

Borer, Hagit. 2005. *Structuring Sense*, Vol. 1: *In Name Only*. Oxford: Oxford University Press.

Bostock, David. 1994. *Aristotle Metaphysics.* Oxford: Clarendon Press.

Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.

Chappell, Hilary, and Sandra A. Thompson. 1992. The semantics and pragmatics of associative *de*. *Cahiers de Linguistique – Asie Orientale* 21.2:199-229.

Cheng, Lisa L.-S., and Rint Sybesma. 1998. *Yi-wan Tang*, *Yi-ge Tang*: classifiers and massifiers. *Tsing Hua Journal of Chinese Studies*, New Series 28.3:385-412.

Cheng, Lisa L.-S., and Rint Sybesma. 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30.4:509-542.

Cheng, Robert L. 1985. A comparison of Taiwanese, Taiwan Mandarin, and Peking Mandarin. *Language* 61.2:352-377.

Chierchia, Gennaro. 1998. Plurality of mass nouns and the notion of "semantic parameter". *Events and Grammar*, ed. by Susan Rothstein, 53-103. Dordrecht & Boston: Kluwer.

Croft, William. 1994. Semantic universals in classifier systems. *Word* 45:145-171.

Erbaugh, Mary S. 1986. Taking stock: the development of Chinese noun classifiers historically and in young children. *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983*, ed. by Colette G. Craig, 399-436. Amsterdam & Philadelphia: John Benjamins.

Greenberg, Joseph H. 1990[1975]. Dynamic aspects of word order in the numeral classifier. *On Language: Selected Writings of Joseph H. Greenburg*, ed. by Keith M. Denning & Suzanne Kemmer, 227-240. Stanford: Stanford University Press. [First published 1975 in *Word Order and Word Order Change*, ed. by Charles N. Li, 27-43. Austin: University of Texas Press.]

Her, One-Soon. 2009. Language and group identity: on Taiwan Mainlanders' mother tongue and Taiwan Mandarin. *Language and Linguistics* 10.2:375-419. (In Chinese)

Hsieh, Chen-Tien. 2009. *A Frame-based Approach to Classifiers: A Case Study of Taiwan Mandarin*. Taipei: National Chengchi University MA thesis.

Hsieh, Miao-Ling. 2005. Two types of modifiers and parallelisms between DPs and TPs in Chinese. *Language and Linguistics* 6.3:397-429.

Hsieh, Miao-Ling. 2008. *The Internal Structure of Noun Phrases in Chinese*. Taipei: Crane.

Hsu, Hui-ju. 2006. *Some Aspects of Phonological Leveling in Taiwan Mandarin*. Taipei: National Taiwan Normal University dissertation.

Hu, Qian. 1993. *The Acquisition of Chinese Classifiers by Young Mandarin-speaking Children.* Boston: Boston University dissertation.

Huang, C.-T. James. 1982. *Logical Relations in Chinese and the Theory of Grammar*. Cambridge: MIT dissertation.

Huang, Chu-Ren, and Kathleen Ahrens. 2003. Individuals, kinds and events: classifier coercion of nouns. *Language Sciences* 25.4:353-373.

Hung, Feng-Sheng. 1996. *Prosody and the Acquisition of Grammatical Morphemes in Chinese Languages.* Bloomington: Indiana University Linguistics Club.

Iljic, Robert. 1994. Quantification in Mandarin Chinese: two markers of plurality. *Linguistics* 32.1:91-116.

Kant, Immanuel. 1998[1781]. *Critique of Pure Reason*. Translated by Paul Guyer & Allen W. Wood. Cambridge & New York: Cambridge University Press.

Li, Wendan. 2000. The pragmatic function of numeral-classifiers in Mandarin Chinese. *Journal of Pragmatics* 32.8:1113-1133.

Li, Y.-H. Audrey. 1999. Plurality in a classifier language. *Journal of East Asian Linguistics* 8.1:75-99.

Liang, Yu-Chang. 2006. *Nominal Phrases in English and Japanese Speakers' L2 Mandarin Grammars.* Cambridge: Cambridge University dissertation.

Lin, Jo-wang. 1997. Noun phrase structure in Mandarin Chinese: DP or NP? *Chinese Languages and Linguistics*, Vol. 3: *Morphology and Lexicon*, ed. by Feng-fu Tsao & H. Samuel Wang, 401-434. Taipei: Institute of History and Philology, Academia Sinica.

Loke, Kit-Ken. 1983. *A Psycholinguistic Study of Shape Features in Chinese* (*Mandarin*) *Sortal Classifiers.* York: The University of York dissertation.

Nichols, Johanna. 1992. *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press.

Paris, Marie-Claude. 1981. *Problèmes de syntaxe et de sémantique en linguistique chinoise*. Paris: Collège de France, Institut des Hautes Etudes Chinoises.

Rey, Georges. 2003. The analytic/synthetic distinction. *Stanford Encyclopedia of Philosophy*, ed. by Edward Zalta. Accessed online, December 1, 2009. http://plato.stanford.edu/entries/analytic-synthetic/

Robertson, Teresa. 2008. Essential vs. accidental properties. *Stanford Encyclopedia of Philosophy*, ed. by Edward Zalta. Accessed online, December 1, 2009. http://plato.stanford.edu/entries/essential-accidental

Sato, Yosuke. 2009. Radical underspecification, general number, and nominal denotation in Indonesian: an exo-skeletal approach. Manuscript. Vancouver: University of British Columbia.

Tai, James H-Y. 1994. Chinese classifier systems and human categorization. *In Honor of William S-Y. Wang: Interdisciplinary Studies on Language and Language Change*, ed. by Matthew Y. Chen & Ovid J. L. Tzeng, 479-494. Taipei: Pyramid.

Tai, James H-Y. 2003. Cognitive relativism: resultative construction in Chinese. *Language and Linguistics* 4.2:301-316.

Tai, James H-Y., and Lianqing Wang. 1990. A semantic study of the classifier *tiao* (條). *Journal of the Chinese Language Teachers Association* 25.1:35-56.

Tang, Chih-Chen Jane. 1990. A note on the DP analysis of the Chinese noun phrase. *Linguistics* 28.2:337-354.

Tang, Chih-Chen Jane. 2005. Nouns or classifiers: a non-movement analysis of classifiers in Chinese. *Language and Linguistics* 6.3:431-472.

Tsai, Wei-Tien Dylan. 2003. Three types of existential quantification in Chinese. *Functional Structure*(*s*), *Form and Interpretation: Perspectives from East Asian Languages*, ed. by Y.-H. Audrey Li & Andrew Simpson, 161-179, London: RoutledgeCurzon.

Watanabe, Akira. 2006. Functional projections of nominals in Japanese: syntax of classifiers. *Natural Languages and Linguistic Theory* 24.1:241-306.

Zhang, Hong. 2007. Numeral classifiers in Mandarin Chinese. *Journal of East Asian Linguistics* 16.1:43-59.

Zhang, Niina. 2009. Syntactic properties of numeral classifiers in Mandarin Chinese. Talk given on April 10, 2009, at the Graduate Institute of Linguistics, National Chung Cheng University. Accessed online, December 1, 2009. http://www.ccunix.ccu.edu.tw/~lngnz/index. files/May%202009.pdf

Zhu, Dexi. 1982. *Yufa Jiangyi* [*Lectures on Grammar*]. Beijing: The Commercial Press.

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One-Soon Her
Graduate Institute of Linguistics &
Research Center of Mind, Brain, and Learning
National Chengchi University
64, Sec. 2, Zhinan Road
Taipei 116, Taiwan
hero@nccu.edu.tw

Chen-Tien Hsieh
Graduate Institute of Linguistics
National Chengchi University
64, Sec. 2, Zhinan Road
Taipei 116, Taiwan
faye2815@yahoo.com.tw

論華語中分類詞與量詞之語意區分

何萬順　　謝禎田
國立政治大學

分類詞與量詞是否能精準的區分一直存有爭議。贊成區分的學者所提出的兩個測試：「『的』插入法」與「形容詞修飾法」，已被證實缺乏準確性。本文深入檢視此二測試法，進而提出兩組精確且真實可靠之測試。並且運用亞里斯多德對於「本質特徵、偶然特徵」、以及康德對「分析命題、綜合命題」之區分，適切地描繪出「分類詞、量詞」之區辨。由於量詞具有實質之語義，因此阻絕了數詞及形容詞對名詞的修飾；相對的，分類詞僅彰顯名詞本身既有之某些語義特徵，並不貢獻任何額外的語義，因此數詞及形容詞可穿透分類詞而修飾名詞。

關鍵詞：類別詞，量詞，本質特徵，分析命題

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Structure of Classifiers and Measure Words: A Lexical Functional Account*

One-Soon Her
National Chengchi University

Previous accounts of the distribution of classifiers (C) and measure words (M) in Chinese [Num C/M N] include a uniform left-branching, right-branching, or split structure. This paper demonstrates that the left-branching structure best captures C/M's common properties—among others, they are unified mathematically as the multiplicand (*1* and ¬*1* respectively) — and also offers the simplest account of word order typology. By contrast, the right-branching and the split account both over-generate and under-generate. A formal account is offered within Lexical Functional Grammar. C/M share the same left-branching (constituent) c-structure but differ in (functional) f-structure, where C serves as a co-head of N, but M heads the QUANTIFIER function. The f-structure proposed reflects the insight that cognitively C, not M, serves to *profile* an essential feature of N, in the sense of Fillmore (1982), and also captures the selectional restrictions between C and N.

Key words: classifier, measure word, constituency, c-structure, f-structure, profile, multiplication

1. Introduction

Whether classifiers (C) and measure words (M) in a [Num C/M N] phrase in Chinese, as shown in (1) and (2) respectively, give rise to an identical syntactic structure or two different structures has been a rather contentious issue.

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(1) a. 一百 尾 魚
yibai *wei* *yu*
one hundred C fish
'one hundred fish'

b. 三 根 香蕉
san *gen* *xiangjiao*
three C banana
'three bananas'

c. 十 匹 馬
shi *pi* *ma*
ten C horse
'ten horses'

(2) a. 一百 箱 魚
yibai *xiang* *yu*
one hundred M-box fish
'one hundred boxes of fish'

b. 三 公斤 香蕉
san *gongjin* *xiangjiao*
three M-kilo banana
'three kilos of bananas'

c. 一 群 馬
yi *qun* *ma*
one M-herd horse
'one herd of horses'

Some studies assign C/M a unified structure, which some argue to be left-branching, or [[Num C/M] N], and others right-branching, or [Num [C/M N]]. Yet, in some syntactic accounts both structures are required for C/M. A consensus seems rather elusive. Contra syntax, a semantic distinction between C/M is nearly universally recognized. A well-cited example is Tai & Wang's (1990:38) characterization:

> A classifier categorizes a class of nouns by picking out some salient perceptual properties, either physically or functionally based, which are permanently associated with entities named by the class of nouns; a measure word does not categorize but denotes the quantity of the entity named by noun.

This paper aims to provide convincing evidence for C/M's unified left-branching structure and render a formal account within the Lexical Functional Grammar (LFG).

The paper is organized as follows. Section 2 first summarizes the distinction between C/M from semantic, cognitive, and mathematical perspectives and then documents a set of consequential formal tests to distinguish between C/M. Section 3 then moves on to demonstrate that C/M share at least seven common properties in syntactic behavior. Section 4 consists of a succinct critical review of previous syntactic accounts. A formal LFG account is offered in §5, one that captures how C/M are different as well as what they have in common. Section 6 concludes the paper with a summary.

2. C/M distinctions

This section first documents how C/M are inherently different in §2.1 and then illustrates how these differences lead to observable phenomena in §2.2.

2.1 Semantic, mathematical, and cognitive distinctions between C/M

Her & Hsieh (2010) pinpoint the distinction between C/M with Aristotle's essential vs. accidental feature.

(3) Essential vs. Accidental Property
P is an *essential property* of an object *o* just in case it is necessary that *o* has *P* whereas *P* is an *accidental property* of an object *o* just in case *o* has *P* but it is possible that *o* lacks *P*. (Robertson 2008)

Thus, in (1a), the C 尾 *wei* and the N 魚 *yu* 'fish' are compatible in that having a tail is an essential property for fish. The classifier thus only highlights a certain inherent feature of N and provides no additional information to the phrase. A measure word, e.g. 箱 *xiang* 'box' in (2a), does provide additional information to the noun: the fish are inside the box and/or mass the boxful quantity, which is an accidental property of the N. Adams & Conklin's (1973:2) insight that C's *qualify* and M's *quantify* the head noun thus receives a precise interpretation. Her (to appear) further proposes that in set-theoretic terms this simply means that the properties denoted by C constitute a subset of those denoted by N, which is not true for M.

(4) **C/M Distinction in Set-theoretic Terms** (Her to appear)
Given a well-formed phrase [Num K N], *X* the set of properties denoted by K, and *Y* the set of properties denoted by N, K=C *iff* X⊂Y; otherwise, K=M.

Therefore, in (5), even though *fish*, *sheep*, *chicken*, *elephant*, and *germ* may each have very different semantic content, they are all inherently animate. That they can all share the same C 隻 *zhi* is because *zhi* precisely denotes animacy.

(5) 三 隻 魚/羊/雞/大象/細菌
san *zhi* *yu*/*yang*/*ji*/*daxiang*/*xijun*
three C fish/sheep/chicken/elephant/germ
'three fish/sheep/chickens/elephants/germs'

Thus, though C may be required syntactically, C is semantically redundant in [Num C/M N]; M is not.[1] As we shall see later, this difference is central to the various different behaviors that C/M display, one of which is mathematical. Integrating insights gained from the concepts of parceler (Landman 2004), divider (Borer 2005), and multiplicand (Au Yeung 2005, 2007), Her & Lai (to appear) and Her (to appear) propose that the relation between Num and C/M can be seen as *multiplier* and *multiplicand*.[2] Crucially, C/M are unified under the notion of multiplicand and yet with distinct values: C's value is necessarily *1* and M ¬*1*.

(6) **C/M Distinction in Mathematics**
[Num <u>K</u> N] = [Num×<u>*k*</u> N], where K=C *iff k=1*, otherwise K=M.

Multiplication is a fundamental operation in the number system, which is strictly regular in Chinese and follows this nearly universal pattern [(*n* × *base*) + *m*, *where m* < *base*] (Comrie 2006, 2011). In its 3000 years of recorded history, numbers in Chinese have consistently followed this pattern. A high number round figure, e.g. 九千 *jiu-qian* '9000' and 六十 *liu-shi* '60', employs the simple multiplication [*n* × *base*], e.g. [*jiu* '9' × *qian* '1000'] and [*liu* '6' × *shi* '10']. In the [Num C/M N] sequence, [Num C/M] can likewise be viewed as a [*n* × *base*], or [*multiplier* × *multiplicand*], operation, a natural extension of the number system (Au Yeung 2005, 2007, Her to appear). In (7), therefore, the C's all have precisely the same mathematical value, *1*, though each characterizing a unique semantic aspect of the noun.

[1] A reviewer pointed out that while C is mathematically redundant, it may not be so syntactically or semantically, because C may be strictly required in certain contexts, e.g. **jibai yu* 'several-hundred fish' in Mandarin. However, note that *jibai* (*ge*) *ren* 'several-hundred persons' is perfectly acceptable. Also, in many classifier languages, C is optional. Among the 140 classifier languages reported in Gil (2011), a whopping 62 allow numeral classifiers to be optional.

[2] Using *san da meiguihua* or *three dozen roses* as an example, in the equation *3* × *12* = *36*, 12 is the multiplicand, representing the number in a group, and 3 is the multiplier, referring to the number of groups.

(7) a. 三 位 老師
san *wei* *laoshi* ([3 × *1*] teacher)
three C teacher
'three teachers'

b. 七 隻 老虎
qi *zhi* *laohu* ([7 × *1*] tiger)
seven C tiger
'seven tigers'

c. 十 顆 西瓜
shi *ke* *xigua* ([10 × *1*] watermelon)
ten C watermelon
'ten watermelons'

d. 八 輛 汽車
ba *liang* *qiche* ([8 × *1*] car)
eight C car
'eight cars'

M's value, on the other hand, is anything but *1*, thus ¬*1*. The possibilities of an M's value are thus infinite, and the actual value can be numerical or non-numerical. In the case of it being numerical, it can denote a specific number, e.g. (8a-b), or it can designate an unspecified number, e.g. (9a-b).

(8) a. 兩 打 玫瑰
liang *da* *meigui* ([2 × *dozen*(=*12*)] rose)
two M-dozen rose
'two dozen roses'

b. 三 雙 鞋
san *shuang* *xie* ([3 × *pair*(=*2*)] shoe)
three M-pair shoe
'three pairs of shoes'

(9) a. 一 群 野馬
yi *qun* *yema* ([1 × *herd*(n=?)] wild-horse)
one M-herd wild-horse
'one herd of wild horses'

b. 三 組 學生
san *zu* *xuesheng* ([3 × *group*(n=?)] student)
three M-group student
'three groups of students'

The actual value of an M can also be non-numerical, which can in turn be of a predetermined fixed value, such as standard measures, e.g. (10a-b), or it can be a non-determined variable value, e.g. (11a-b).

(10) a. 四 公斤 鹽
si *gongjin* *yan* ([4 × *kilo*] salt)
four M-kilo salt
'four kilos of salt'

b. 三 碼 布
san *ma* *bu* ([3 × *yard*] fabric)
three M-yard fabric
'three yards of fabric'

(11) a. 四 箱 鹽
si *xiang* *yan* ([4 × *box*] salt)
four M-box salt
'four boxes of salt'

b. 三 堆 布
san *dui* *bu* ([3 × *pile*] fabric)
three M-pile fabric
'three piles of fabric'

This mathematical distinction of *1* versus ¬*1* between C/M reflects M's 'opacity' and C's 'transparency' (see §2.2), as the multiplicand is vacuous when it has precisely the value of *1*, but it is substantive otherwise. C/M thus share this important common property, i.e. being the multiplicand, and yet differ crucially in their values. This is why C/M share some common behaviors but also differ in significant ways.

Finally, though C/M share the cognitive function as a divider (Borer 2005) or parceler (Landman 2004) for the noun, C uniquely serves the function as a profiler, in the sense of Fillmore (1982) and Langacker (1987), and highlights a certain inherent semantic feature of the noun (Hsieh 2009, Her & Lai to appear, Her & Hsieh 2011). Take (12) for example.

(12) 一 把 壺
yi *ba* *hu*
one C(handle) teapot
'one teapot'

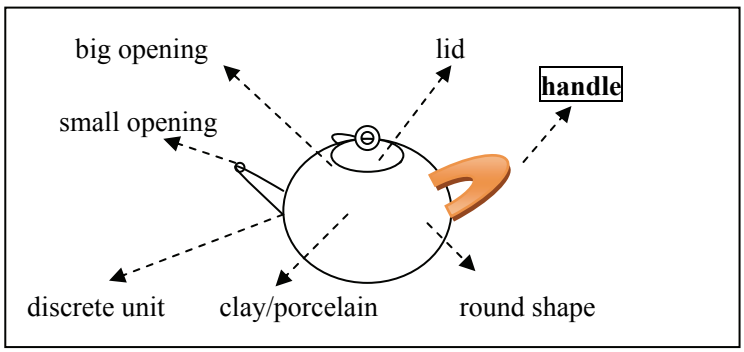


Figure 1: N as Frame and C as Profile

Figure 1 shows schematically that N *pot* provides the frame, where having a handle is an inherent feature, which is profiled by C *ba*.[3] This view explains why C, as a mathematically vacuous element, is needed for a cognitively-motivated linguistic function. The many C's in a classifier language thus represent the many ways to profile the multiplicand *1* in the language (Greenberg 1990a:172, Her & Lai to appear). Since a C can only profile a feature that the noun inherently possesses, this view also explains quite naturally why each C selects its class of nouns. Different languages can thus have different ways to profile this multiplicand *1*, and therefore different ways to classify nouns. In fact, within the same language, the same noun may have more than one profilable feature. For example, *teapot* can also co-occur with the general classifier *ge*, as in *yi ge hu* (1 C teapot). In the case of a general classifier, it profiles the discreteness of the entity and thus selects nouns that are countable.

2.2 C/M's differences in behavior

This subsection first illustrates the different behaviors that C/M display, which, as revealed by Her & Hsieh (2010) and Her (to appear), is due to the semantic distinction between C/M in [Num C/M N], where C is redundant and M substantive.

[3] A reviewer pointed out that this analysis fails to account for *ba* in such examples as 一把鼻涕、一把眼淚 *yi ba biti*, *yi ba yanlei* (one handful nasal-mucus, one handful tear) 'a handful of nasal-mucus and a handful of tears', indicating some serious crying and sobbing. Note, however, as noted by many researchers (e.g. Her & Lai to appear), certain lexemes may function as a C and an M, *ba* being a good example. The two instances above involve *ba* as an M, meaning *handful*, not a C profiling the *handle*. The reviewer is correct, nonetheless, in suggesting that both cases should find origin in the verbal meaning of *hold* in Archaic Chinese.

First of all, C/M differ crucially in several scope phenomena, as first observed in Her & Hsieh (2010), H&H hereafter, and Zhang (2011). The first observation relates to the scope of adjectival modification. Though the bare adjectives allowed on C/M are rather restricted to size and length, when allowed, the adjective scopes over C as well as N, but modifies M only. This contrast is shown in (13).[4]

(13) a. 一 **大** 箱 蘋果 ≠ 一 箱 **大** 蘋果 (H&H 13a)
yi ***da*** *xiang* *pingguo* *yi* *xiang* ***da*** *pingguo*
one big M-box apple one M-box big apple
'one big box of apples' 'one box of big apples'

b. 一 **大** 顆 蘋果 = 一 顆 **大** 蘋果 (H&H 13b)
yi ***da*** *ke* *pingguo* *yi* *ke* ***da*** *pingguo*
one big C apple one C big apple
'one big apple' 'one big apple'

Consequent of this scope phenomenon, a C modifier and an N modifier must be compatible, as shown in (14), while an M modifier and an N modifier can be contradictory, as shown in (15).

(14) a. #一 **大** 顆 **小** 蘋果 (H&H 15a)
yi *da* *C* ***xiao*** *pingguo*
one big C small apple

b. #**大大的** 一 顆 **小** 蘋果 (H&H 15b)
dadade *yi* *ke* ***xiao*** *pingguo*
big one C small apple

c. #**大大的** 一 顆 **小小的** 蘋果
dadade *yi* *ke* ***xiaoxiaode*** *pingguo*
big one C small apple

(15) a. 一 **大** 箱 **小** 蘋果 (H&H 14a)
yi ***da*** *xiang* ***xiao*** *pingguo*
one big M-box small apple
'one big box of small apples'

[4] A reviewer questioned why 一手冰啤酒 *yi shou bing pijiu* (1 six cold beer) 'a six-pack of cold beer' is good but *一冰手啤酒 *yi bing shou pijiu* (1 cold six beer) is bad. First of all, here 手 *shou* has the precise value of 6, similar to the value of 2 of 雙 *shuang* 'pair' and 12 of 打 *da* 'dozen'. All three are thus M. As pointed out by many researchers (e.g. H&H, Zhang 2011), the adjectives allowed to modify C/M are highly restricted, usually to the ones related to size or length.

b. 大大的 一 箱 小 蘋果 (H&H 14b)
dadade *yi* *xiang* ***xiao*** *pingguo*
big one M-box small apple
'one big box of small apples'

c. 大大的 一 箱 小小的 蘋果
dadade *yi* *xiang* ***xiaoxiaode*** *pingguo*
big one M-box small apple
'one big box of small apples'

In (15), all three phrases are semantically congruent, as the box is big and the apples are small. Yet, (14) differs in having a C and all three phrases are incongruent, as the apples cannot be big and small at the same time. Note that Zhang (2011) makes the same observation independently. In addition, Her (to appear) has discovered several other syntactic contexts where this very difference in adjectival scope between C/M is displayed. For our purpose in this paper, it is quite sufficient to have demonstrated this difference in one of the environments.

The other type of scope phenomena relates to Num's scope of quantification. This scope goes beyond C and includes N, referring to the cardinality of a set of N. Yet, Num does not scope over N if followed by an M and thus quantifies M only. This is demonstrated by the fact that C, in an appropriate context, can be omitted, but not M. Thus, the Biblical story of Jesus' performing a miracle with 'five loaves of bread and two fishes' is preferably referred to as (16), whose meaning is identical to (17), where the missing C's are all overtly filled. Again, the omission of C is possible because it is semantically redundant as a profiler and mathematically null as the multiplicand *1*.

(16) 五 餅 二 魚 餵飽 五千 人
wu *bing* *er* *yu* *weibao* *wuqian* *ren*
five loaf two fish feed-full five thousand person
'Five thousand people were fed with five loaves and two fish.'

(17) 五 **張** 餅 二 **條** 魚 餵飽 五千 **個** 人
wu ***zhang*** *bing* *er* ***tiao*** *yu* *weibao* *wuqian* ***ge*** *ren*
five **C** loaf two **C** fish feed-full five thousand **C** person
'Five thousand people were fed with five loaves and two fish.'

To summarize, C/M differ only in terms of scope phenomena. Metaphorically, C is *transparent* in that numerals and pre-C adjectives scope over C as well as N; M is *opaque* and numerals and pre-M adjectives only scope over M, not N. H&H attribute this difference to C's being semantically redundant and M substantive in [Num C/M N].

Her (to appear) further attributes this transparent property of C to the fact that, as the multiplicand of Num, C has the precise value of *1* and is thus vacuous and optional. M, on the other hand, has a value other than *1* and therefore cannot be omitted. We shall see in section 3 that C/M otherwise behave quite similarly.

3. C/M similarities

Other than the differences documented above, C/M behave the same and share at least seven common properties.

3.1 C/M are mutually exclusive

The first observation is rather obvious, i.e. C/M occupy the same position in [Num C/M N], and, as shown in (18), are mutually exclusive.

(18) a. *一 箱 本 書
yi *xiang* *ben* *shu*
one M-box C book

b. *一 本 箱 書
yi *ben* *xiang* *shu*
one C M-box book

This suggests that C/M belong to the same category. However, one might suggest that C/M's mutual exclusivity is due to semantic incompatibility. For example, in Krifka's (1995, 2003) system, the difference between English and Chinese is that in English a numeral combines directly with N, which in effect has a 'built-in' C, reflected via plural inflection. In Chinese, the combination of a C/M with N requires a numeral as its sister for the sake of compositional semantics. Thus, (18) can be ruled out on the ground that a C/M is not combined with a numeral. This theory thus dictates that a numeral combine with an overt C/M or with an N marked for plural morphology. Yet, there are attested languages with no C's, nor plurality marking, e.g. the Athapaskan language Dene Suline in central Canada (Wilhelm 2008) and Archaic Chinese (e.g. Norman 1988:120). Also, as seen in the example of (16) in §2.2, C is in fact not strictly required in Modern Chinese. Furthermore, as we shall see momentarily in this section, another C/M common property is that Num can also be elided in Chinese, thus [~~Num~~ C/M N], when its value is precisely *1*. Thus, C/M's mutual exclusivity cannot be attributed to semantic incompatibility.

To demonstrate that C and M are semantically compatible, we first need to point out again the same multiplication operation in high round numbers, e.g. 三百 *sanbai*

'300' involes [*n* × *base*], where *3* is the multiplier and *bai* 'hundred' the multiplicand, and the [Num C/M] sequence, which can likewise be viewed as a [*n* × *base*], or [*multiplier* × *multiplicand*], operation. This simple math in C/M is seen in (19a-b).

(19) a. 三 朵 玫瑰
san *duo* *meigui* (3 **×1** rose)
three C rose
'three roses'

b. 三 打 玫瑰
san *da* *meigui* (3**×12** rose)
three M-dozen rose
'three dozen roses'

(20) a. 三百 朵 玫瑰
san-bai *duo* *meigui* (300 **×1** rose, or 3 **×100 × 1** rose)
three hundred C rose
'three hundred roses'

b. *三 打 朵 玫瑰
san *da* *duo* *meigui* (3 **×12 × 1** rose)
three M-dozen C rose
(Intended) 'three dozen roses'

Note, however, in (20a), there are two ways to conceive the multiplication relation, that is, 三百 *sanbai* '300' can be seen either as a single number or as a [3 × *bai*] sequence. This latter interpretation has the same semantic and mathematic structure as that of (20b), where the only difference is the replacement of *bai* 'hundred' with *da* 'dozen'. And yet, (20a) is good, which yields the interpretation *300 roses* or *3 sets of 100 roses*, but (20b) is bad, which yields the interpretation *3 sets of 12 roses* or *36 roses*. Given that both *bai* 'hundred' with *da* 'dozen' are similar semantically and mathematically in that they both denote a precise numerical value, the ill-formedness of (20b) can thus only be attributed to the fact that *bai* 'hundred' belongs to the category Num, *da* 'dozen' the category C/M. This restriction against C/M appearing in the same slot is therefore purely formal. C/M are thus of the same syntactic category.

3.2 Both C/M allow N ellipsis

Second, C/M are identical in allowing N ellipsis, thus [Num C/M ~~N~~], when N is recoverable from discourse. We shall discuss this construction in more detail in §5.

(21) a. 他 有 三 箱 書， 我 有 三 本
ta you san xiang shu wo you san ben
he have three M-box book I have three C
'He has three boxes of books, I have three (books).'

b. 他 有 三 本 書， 我 有 三 箱
ta you san ben shu wo you san xiang
he have three C book I have three M-box
'He has three books, I have three boxes (of books).'

3.3 Both C/M allow ellipsis

Third, C/M are also identical in allowing themselves to be elided, thus [Num ~~C/M~~ ~~N~~], as long as N and C/M are both recoverable from discourse and Num is a high number round figure.

(22) a. 他 有 一百 本 書， 我 有 三百
ta you yibai ben shu wo you ***sanbai***
he have one hundred C book I have **three hundred**
'He has one hundred books, I have three hundred.'

b. *他 有 一百 本 書， 我 有 三
ta you yibai ben shu wo you ***san***
he have one hundred C book I have **three**
'He has one hundred books, I have three.'

(23) a. 他 有 一百 箱 書， 我 有 三百
ta you yibai xiang shu wo you ***sanbai***
he have one hundred M-box book I have **three hundred**
'He has one hundred boxes of books, I have three hundred (boxes of books).'

b. *他 有 一百 箱 書， 我 有 三
ta you yibai xiang shu wo you ***san***
he have one hundred M-box book I have **three**
'He has one hundred boxes of books, I have three (boxes of books).'

In a corpus-based study by Paris & Vinet (2010), the approximative 左右 *zuoyou* 'around, about' also prefers to follow larger round figures. Indeed, the acceptability of the well-formed examples in (22)-(23) can be further increased with *zuoyou* added at the end. However, the ill-formed examples cannot be rescued at all. The identical underlying multiplication in high number round figures and [Num C/M] provides a

logical explanation. 三百 *sanbai* '300', for example, involves [*3* × *bai*], where *bai* serves as the base, or multiplicand; likewise, 三百本 *sanbai ben* '300 C' and 三百箱 *sanbai xiang* '300 boxes' involve [*300* × *ben*/*xiang*], where *ben* and *xiang* also serve as the base, or multiplicand. Thus, a discoursally recoverable C/M can be elided as long as the remaining Num itself is analyzable as the [*n* × *base*] structure, thus resembling the [Num C/M] structure. A more clear illustration of this parallel structure between the base in a high number round figure and the C/M in [Num C/M] in given in (24). In (24a), only Num 三百 *sanbai* '300' remains, with C/M and N elided, while in (24b), only N is elided, and Num and C/M remain. What makes the remaining Num 三百 *sanbai* '300' in (24a) acceptable is its internal structure of [*3* × *bai*], which resembles the structure of [*3* × *da*] in (24b).

(24) a. 他 有 一百 朵 玫瑰， 我 有 **三百**
ta *you* *yibai* *duo* *meigui* *wo* *you* ***sanbai***
he have one hundred C rose I have **three hundred**
'He has one hundred roses, I have three hundred.'

b. 他 有 一百 朵 玫瑰， 我 有 **三** **打**
ta *you* *yibai* *duo* *meigui* *wo* *you* ***san*** ***da***
he have one hundred C rose I have **three** **dozen**
'He has one hundred roses, I have three dozen.'

3.4 Both C/M allow *-de* insertion

Fourth, C/M are alike in allowing *-de* to intervene, and thus [Num C/M-*de* N] is well-formed. Previously, it has been repeatedly claimed that *de* may be optionally inserted after M but not C (e.g. Chao 1968:555, Paris 1981:32, Zhu 1982:51, Tai & Wang 1990, Tai 1994, Cheng & Sybesma 1998:388, 1999:515). Cheng & Sybesma (1998, 1999) further argue that this distinction is related to the count/mass distinction, and thus the distinction between partitives versus pseudo-partitives (e.g. Selkirk 1977, Jackendoff 1977). Specifically, M allows *-de* because it refers to an amount of some substance, expressed thus by a mass noun, while C disallows *-de* because it refers to a part or subset of a superset, which can be expressed only by a count noun. However, as noted by Tang (2005), Hsieh (2008), Li (2011), Li & Rothstein (2012), and Zhang (2011), and also demonstrated most convincingly by H&H, C/M differ little in this regard.[5] This fact varies little among dialects within Mandarin Chinese, as some of the

[5] Li (2011) and Li & Rothstein (2012), observing that C/M both allow *-de* but C requires a high number round figure or an approximative, attributes the counting versus measuring function, thus the partitive versus pseudo-partitive distinction, to two different structures of [Num C/M

above dissenting researchers are from China, and the others from Taiwan. The two examples in (25) are from the Sinica Corpus, cited in Hsieh (2008).

(25) a. 五百萬 隻 的 鴨子
wubaiwan ***zhi*** ***de*** *yazi*
five-million C DE duck
'five million ducks'

b. 幾百 條 的 海蛇
jibai ***tiao*** ***de*** *haishe*
several-hundred C DE sea-snake
'some hundreds of sea snakes'

Examples in (26) and (27) are all from Google searches within the Taiwan domain (.tw), cited in H&H; 70 instances of 之一顆的 *zhiyi ke de* 'one fraction of' were found, two of which are listed in (26). The two examples in (27) gave 13 and 9 exact matches, respectively.

(26) a. 八分之一 顆 的 高麗菜
bafenzhiyi *ke* *de* *gaolicai*
one-eighth C DE cabbage
'one-eighth cabbage'

b. 四分之一 顆 的 洋蔥
sifenzhiyi *ke* *de* *yangcong*
one-fourth C DE onion
'one-fourth onion'

(27) a. 一 大 顆 的 高麗菜
yi *da* *ke* *de* *gaolicai*
one big C DE cabbage
'one big cabbage'

b. 一 大 條 的 魚
yi *da* *tiao* *de* *yu*
one big C DE fish
'one big fish'

Num], the former right-branching, and the latter left-branching, thus a split analysis. However, H&H demonstrate that it is the computational complexity of the Num or the N that affects the acceptability of C-*de* (i.e. the more complex, the more acceptable C-*de*) and instead attributes this property to the conceptual closeness between C and N. Section 5 of this paper argues against the right-branching structure, and thus also against the split analysis.

H&H thus observe a close correlation between the acceptability of *-de* insertion and the computational complexity of Num and/or C, as shown in the examples of (26)-(27), a factor more related to processing than to grammar itself, and further claim that other than this, there is little difference between C/M in terms of *-de* insertion.

3.5 Both C/M allow Num ellipsis, if Num = 1

Fifth, interestingly, Num can also be elided, thus [~~Num~~ C/M N], when its value is precisely *1*. Again, C/M behave the same. This makes perfect sense mathematically, as $(n \times m) = m$, *if* $n = 1$. The multiplier *1* can thus be omitted. Again, C/M behave the same in this regard. This property is similar to the omission of C, as the underlying multiplication in [Num C] is [$n \times 1$], where the multiplicand *1* can be omitted.[6]

(28) a. 這 (一) 本/箱 書
zhe (*yi*) *ben*/*xiang* *shu*
the one C/M-box book
'This one book/box of books'

b. 他 買了 (一) 本/箱 書
ta *mai-le* (*yi*) *ben*/*xiang* *shu*
he buy-ASP one C/M-box book
'He bought one book/box of books.'

3.6 In [Num C/M N], N is the head

The sixth common property is that N is the head in [Num C/M N]. C/M do not differ. One indication comes from selectional restrictions imposed by the verb.

(29) a. 這 三 條/尾 魚 都 還 活著， 你 想 養 嗎？
zhe *san* *tiao*/*wei* *yu* *dou* *hai* *huozhe* *ni* *xiang* *yang* *ma*
the three C/C fish all still alive-ASP you want raise Q
'The three fish are all still alive, so do you want to raise them?'

b. 這 三 公斤/箱 魚 都 還 活著， 你 想 養 嗎？
zhe *san* *gongjin*/*xiang* *yu* *dou* *hai* *huozhe* *ni* *xiang* *yang* *ma*
the three kilo/M-box fish all still alive-ASP you want raise Q
'The three kilos/boxes of fish are all still alive, so do you want to raise them?'

[6] According to Cheng & Sybesma (2005), besides Mandarin, Cantonese and Wu also allow bare [C/M N] phrases, but Min does not.

In (29a) and (29b) alike, *fish* is an appropriate subject for the predicate *alive* and likewise an appropriate object for the verb *raise*. C/M thus make no difference in having N as the head of the nominal phrase.

3.7 Both C/M allow *ban* 'half' and *duo* 'more' to follow

The seventh property is that C/M both allow *ban* 'half' and *duo* 'more' to follow. Pay close attention to the meaning of (30a) and (30b). In the preferred reading of (30a), *ban* 'half' is interpreted in reference to the preceding C *ge*, not the following *xiaoshi* 'hour'; hence, the total time is not [*2* × *1*/*2 hour*], but rather [[*2* × *1* (*hour*)] + *1*/*2hour*]. Likewise, in (30b), *duo* 'more' is interpreted in reference to the preceding M *da* 'dozen', not the following *meigui* 'rose'; hence, the total roses are more than six dozens but less than seven dozens. This construction thus reveals that [Num C/M *ban*/*duo*] together as a constituent function as the quantifier (Hsieh 2008:45-46).

(30) a. 兩 個 半 小時
liang *ge* *ban* *xiaoshi*
two C half hour
'two and half hours'

b. 六 打 多 玫瑰
liu *da* *duo* *meigui*
six M-dozen more rose
'six dozens of roses and more'

To summarize the discussions in §3, other than the scope phenomena described in §2.2, C/M behave the same: they occupy the same position in [Num C/M N], where N is the head, and allow the same ellipsis, *-de* insertion, and *ban* 'half' and *duo* 'more' to follow. As we shall see in §4, these similarities are instrumental to the correct syntactic configuration of the [Num C/M N] phrase.

4. Previous syntactic analyses

There are two crucial aspects in the syntactic analysis of [Num C/M N]. The first is whether C/M form a constituent with Num or N first; the former projects a left-branching structure and the latter a right-branching structure. The second aspect is whether C/M share the same left- or right-branching structure. Thus, in this paper we shall largely ignore the intricate details in the analyses previously proposed and will focus on the directions of branching of the structures and whether C/M share the same direction of

branching. Therefore, if an account has C/M generated in two different positions but with the same direction of branching, it is taken to be a unified account. A split account is one that assigns C/M two branching directions.

Given the fact that C/M behave similarly and differently at the same time, there is little wonder that there is no consensus in the literature as to the correct syntactic configuration of the [Num C/M N] phrase. A bias towards the similarities naturally leads to a unified analysis, and otherwise a split analysis. §4.1 presents the unified approach and critically examines its pros and cons, and §4.2 does the same with the split analysis. An LFG alternative is proposed in §5.

4.1 Unified Analyses

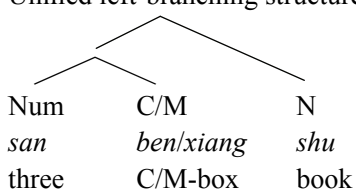
Again, details aside, an account that assigns C/M the same direction of branching is considered a unified account here. Whether it is unified left- or right-branching, each has its advantages and disadvantages.

Unified left-branching

The unified left-branching account, where the numeral and C/M form an exclusive constituent, as shown schematically in (31), enjoys a long history, one that has the early support by Greenberg in his seminal work (1990b).

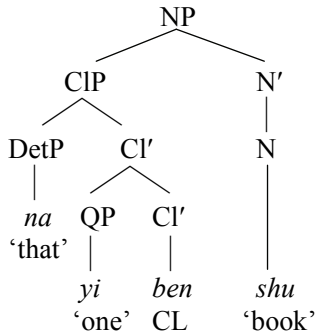
> There are many indications that in the tripartite construction consisting of quantifier (Q), classifier (Cl), and head noun (N), *Q is in direct construction with Cl* and this complex construction, which will be called the classifier phrase, is in turn in construction with N. (Greenberg 1990b:227, *emphasis added*)

(31) Unified left-branching structure

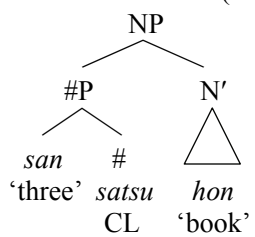


Over the decades, this account has been widely accepted, e.g. Li & Thompson (1981:105), Paris (1981:105-117), Huang (1982), Tang (1990), Croft (1994:151), Lin (1997:419), and Hsieh (2008). In his seminal work on Chinese phrase structure, Huang (1982) posits (32) as a unified analysis for C/M. Fukui & Takano (2000) also propose a similar structure for Japanese C/M, shown in (33).

(32) Huang's (1982) unified left-branching account for Chinese

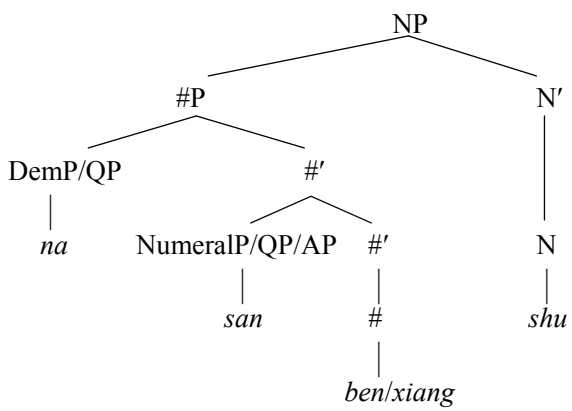


(33) Fukui & Takano's (2000) unified left-branching account for Japanese



The most recent endorsement for the unified left-branching account is from Hsieh (2008), in her book dedicated to the study of the Chinese NP. In (34), an example is given to illustrate Hsieh's (2008) unified account.

(34) 那 三 本/箱 書
na *san* *ben*/*xiang* *shu*
that three C/M-box book

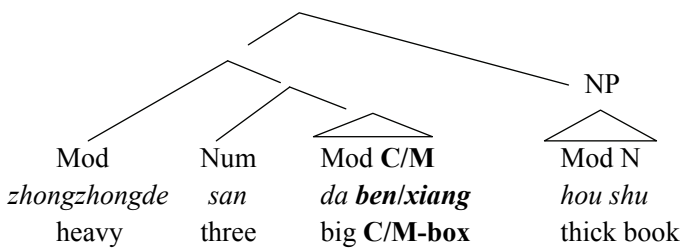


All unified accounts enjoy the obvious advantage that all the common properties documented in detail in §3 that C/M share only need to be stated once. Yet, a unified left-branching account, in particular, has the advantage over the right-branching counterpart in that it captures the parallel mathematical structure, i.e. [*n* × *base*], between the constituent of a high number round figure Num and the constituent of [Num C/M]. However, as Zhang (2011) aptly points out, this account generalizes that all pre-C/M modifiers and Num scope over C/M only, not N, as shown in (35).

(35) Unified left-branching structure

a. 重重的 三 大 本 厚 書
zhongzhongde *san* *da* *ben* *hou* *shu*
heavy three big C thick book
'three heavy big thick books'

b. 重重的 三 大 箱 厚 書
zhongzhongde *san* *da* *xiang* *hou* *shu*
heavy three big M-box thick book
'three heavy big boxes of thick books'

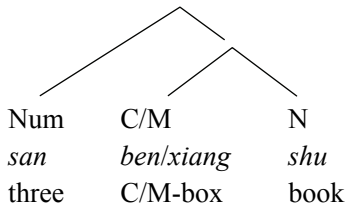


As seen in §2.2, pre-C adjectives and Num must scope over C as well as N. Yet, in (35), the modifiers *heavy* and *big* do not c-command N and thus cannot scope over N. Likewise, Num also does not c-command NP and thus also does not scope over N.

Unified right-branching

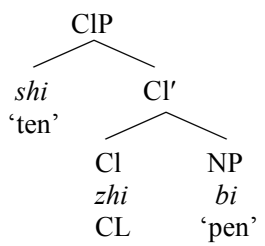
On the flip side, many of the more recent formalist studies on this subject favor a unified right-branching analysis, as shown schematically in (36), e.g. Tang (1990:413, 2005), Cheng & Sybesma (1998, 1999), Borer (2005), Watanabe (2006), Zhang (2009), among others.

(36) Unified right-branching structure

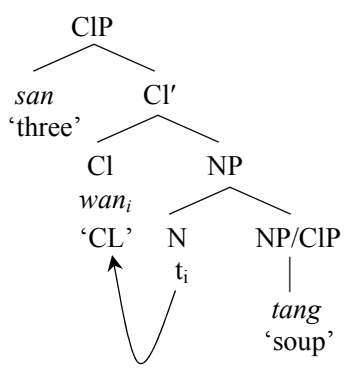


Cheng & Sybesma (1998, 1999), for example, propose that C is base-generated as the head of ClP, as in (37a), while M, as shown in (37b), only moves to C from its original lower position. Movement put aside, both C/M form a constituent with N first, excluding Num.

(37) a. 十 枝 筆
shi *zhi* *bi*
ten C pen

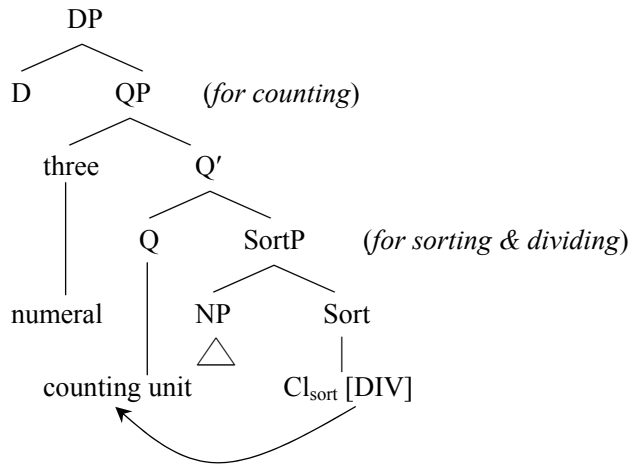


b. 三 碗 湯
san *wan* *tang*
three M-bowl soup



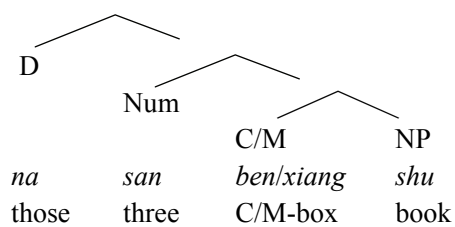
Zhang (2009), on the other hand, contends that C is base-generated as the head of a SortP, with a preceding NP as its complement, and moves up to Q, where M is base-generated. This account is shown in (38). Again, details aside, both C/M form a constituent with N first, excluding Num.

(38)



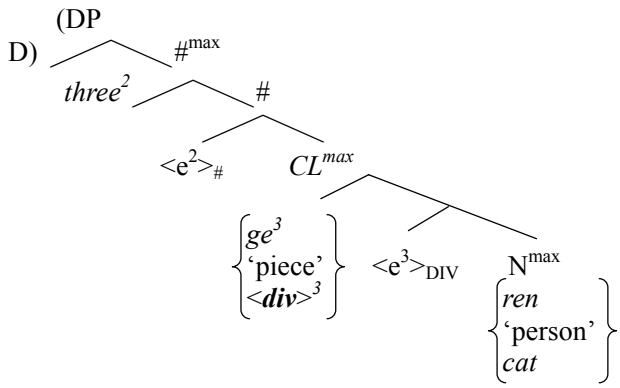
Tang (2005), in contrast, has both C and M straightforwardly base-generated as the head of ClP, or classifier phrase, with no movement involved.

(39)

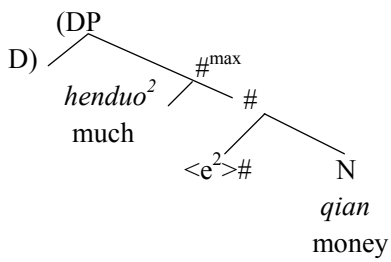


Borer (2005) proposes that Chinese C parallels English plurality marker *-s* and functions as a mass *divider* that affords the noun a count interpretation in the structure in (40a). M, on the other hand, parallels English measure phrases and has the structure in (40b), possibly as the head of #^{max}.

(40) a.



b.

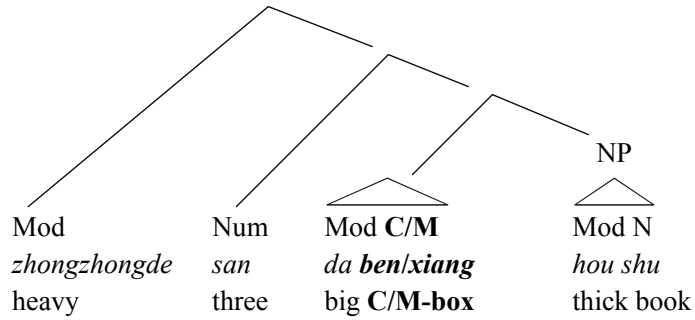


In spite of Borer’s (2005) claim that lexically all nouns in all languages are mass by default and the two different structures assigned to C/M, C/M behave the same in forming a constituent with N first, excluding Num. Like the unified left-branching accounts, these unified right-branching accounts have the advantage that all the common properties documented in detail in §3 that C/M share only need to be stated once. However, like the unified left-branching account, the unified right-branching account also generalizes the scope of a pre-C/M adjective and the quantification scope of Num (Zhang 2011).

(41) Unified right-branching structure

a. 重重的 三 大 本 厚 書
zhongzhongde *san* *da* *ben* *hou* *shu*
heavy three big C thick book
‘three heavy big thick books’

b. 重重的 三 大 箱 厚 書
zhongzhongde *san* *da* *xiang* *hou* *shu*
heavy three big M-box thick book
‘three heavy big boxes of thick books’



The structure in (41) shows that all pre-C/M modifiers and Num c-command C/M as well as N and thus scope over C/M as well as N, if C/M are assumed to be functional. Yet, if C/M are assumed to be lexical, then pre-C/M modifiers and Num only scope over C/M, but not N. This is a dilemma given that, as seen in §2.2, pre-M numerals and pre-M adjectives scope over M, but not N.

Zhang (2011) thus also rejects the right-branching account, which treats C/M uniformly. Yet, a possible solution to this dilemma is found in Vos (1999) and van Riemsdijk (1998), where it is assumed that M is lexical and thus opaque blocking modification and quantification to scope over N, while C is semi-lexical, thus more functional than purely lexical items such as M, and is therefore transparent. This is similar to Kubo's (1996) proposal to distinguish syntactic, semantic, and cognitive elements in grammar, and to view M as semantic and C as cognitive. Her & Hsieh (2010) likewise point out that C is a closed set and M an open set in Chinese, corresponding to a functional category and a lexical category respectively. Note that in the left-branching structure of (35), C, being semi-lexical and thus transparent, still does not allow the non-c-commanding adjectives and Num to scope over N. The right-branching account, therefore, fares better than the left-branching counterpart in relation to C/M differences in scope phenomena. However, in §5.1 we shall see that the left-branching account fares better in capturing C/M's common behaviors and that there are also other good reasons from word order typology to reject the right-branching account. An ultimate LFG solution is then offered in §5.2, which also takes advantage of the insight that C is less lexical and more functional than M.

4.2 A split analysis

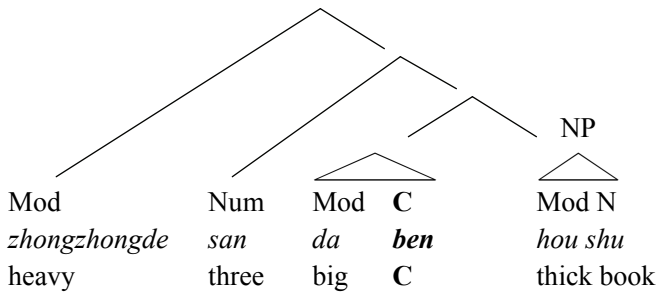
Having considered the advantages and disadvantages of the unified accounts, Zhang (2011) concludes that a split analysis is the best solution, where C appears in a right-branching structure, as in (42a), and M a left-branching structure, as in (42b).

(42) Split Analysis (Zhang 1011)

a. Right-branching for C

重重的	三	大	本	厚	書
zhongzhongde	*san*	*da*	*ben*	*hou*	*shu*
heavy	three	big	C	thick	book

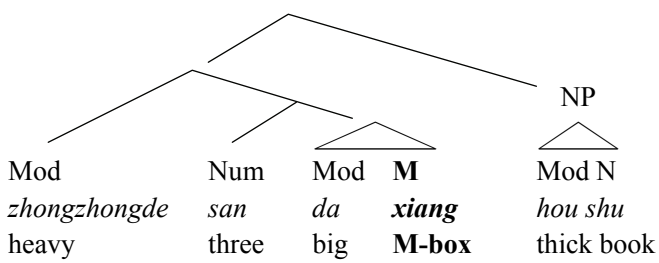
'three heavy big thick books'



b. Left-branching for M

重重的	三	大	箱	厚	書
zhongzhongde	*san*	*da*	*xiang*	*hou*	*shu*
heavy	three	big	M-box	thick	book

'three heavy big boxes of thick books'



The obvious advantage of the split analysis is that it nicely captures how C and M differ in scope phenomena. On the other hand, its biggest disadvantage is precisely that it is a split analysis. A unified account is simpler and is thus always preferred, everything else being equal.

Out of the seven properties that C/M share, the first property documented in §3 is that C/M seem to be mutually exclusive and thus seem to occupy the same position. (42a) and (42b) fail to capture this.

The second property is that N can be elided in [Num C/M N]. Amongst the studies that propose a right-branching analysis for C, it is assumed that the classifier heads its own projection (Saito et al. 2008); thus, in (42a), the elided NP is the complement of C. Yet, in (42b), N is the head of the entire phrase. A generalization cannot be made.

The third property is C/M and N can both be elided if Num is a high number and a round figure, e.g. 100 or 300. Again, C/M in (42a) and (42b) respectively do not enter a uniform relation with N and thus a single generalization likewise cannot be made of how C/M can both be elided together with N.

The fourth property is that C/M are alike in allowing *-de*, thus [Num C/M-*de* N]. Again, C/M do not enter the same relation with N and thus a single generalization cannot be made.

The fifth property is that C/M behave similarly in allowing Num to be optional if Num is *one*. Since in both (42a) and (42b) Num c-commands C and M, a single generalization can be made.

The sixth property is that, in terms of selectional restrictions imposed by a verb on the phrase [Num C/M N], N is the head regardless of the preceding C/M. Yet, while in (42b), N is the head; in (42a) C is the head, not N, which is C's complement.

Finally, the seventh property, that both C/M allow *ban* 'half' and *duo* 'more' to follow, also cannot be generalized across C/M in the split analysis.

Fundamentally, the split analysis fails to capture the uniform mathematical structure between Num and C/M, i.e. multiplier and multiplicand, an insight reflected only by (42b), not (42a). In §5, we shall indeed argue for a uniform c-structure, or constituent structure, based on the left-branching (42b).

5. An LFG account

With the three possible accounts more or less rejected, the focus in this section is a solution to the syntactic structure of [Num C/M N] within the Lexical Functional Grammar (LFG) (cf. Bresnan 2001, Falk 2001). An essential theoretic assumption of LFG is that the semantic argument structure (a-structure), the relational structure of grammatical functions (or f-structure), and the configurational structure of phrasal constituents (c-structure), are all parallel autonomous planes of grammatical organization related by local structural correspondences, in the same way that the melody of a song relates to its lyrics (e.g. Bresnan & Kanerva 1989). In §5.1, a unified c-structure will be proposed to account for C/M similarities and a split f-structure analysis is proposed in §5.2 due to C/M differences.

5.1 A unified left-branching c-structure

The left-branching c-structure, repeated as (43), is favored over its right-branching counterpart because it captures the uniform underlying [*multiplier* × *multiplicand*] mathematical structure between high number round figures and C/M. Yet, the right-

branching account has the advantage of capturing the C/M differences in scope phenomena, where C is assumed to be semi-lexical and thus more functional and transparent. Therefore, if we are able to explain the scope differences within the left-branching structure, then it should be favored.

(43) Unified left-branching c-structure

a.

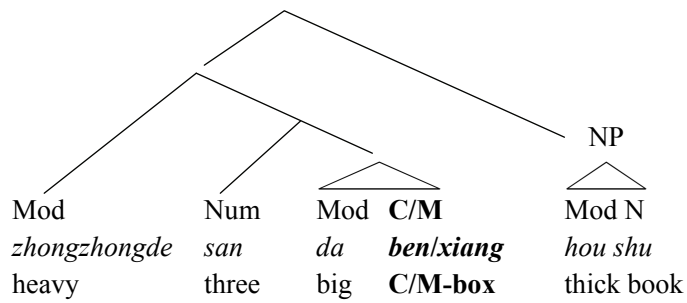
重重的	三	大	本	厚	書
zhongzhongde	*san*	*da*	*ben*	*hou*	*shu*
heavy	three	big	C	thick	book

'three heavy big thick books'

b.

重重的	三	大	箱	厚	書
zhongzhongde	*san*	*da*	*xiang*	*hou*	*shu*
heavy	three	big	M-box	thick	book

'three heavy big boxes of thick books'



The unified left-branching c-structure better captures C/M's seven common properties in the phrase [Num C/M N]: (1) C/M are mutually exclusive, (2) N can be elided, (3) C/M can also be elided along with N, if Num is a high number and a round figure, (4) C/M both allow *-de*, (5) Num is optional if its equals *one*, (6) N is the head, and (7) both C/M allow *ban* 'half' and *duo* 'more' to follow. We shall now see a point-by-point comparison with the right-branching option.

Property (1), C/M being mutually exclusive, does not favor either left or right. Yet, an explanation is needed for property (2), N ellipsis. As mentioned earlier, among unified right-branching analyses, it is universally assumed that the classifier heads its own projection and thus the elided NP is the complement of C (Saito et al. 2008). Indeed, the major cases of N′-ellipsis, VP-ellipsis, and sluicing all involve functional heads, i.e. D, T, and C respectively, and it is the complement that is elided. Obviously, this standard assumption does not apply to NP in the left-branching structure of (43), where NP is the head, not the complement. Thus, the NP ellipsis in (43) must not be a case of complement ellipsis but a case of head ellipsis, or gapping, similar to cases in (44) and (45).

(44) a. dental ~~technology~~ and food technology
b. business ~~conditions~~ and financial conditions
c. Mary read two books, and John read five ~~books~~.
d. She has two children but wants more ~~children~~.
e. She was singing, and ~~she was singing~~ beautifully.
f. Q: Are you coming? A: Yes, ~~I'm coming~~ in a minute.

(45) a. 你 穿 大號 西裝, 我 穿 中號 ~~西裝~~
ni *chuan* *dahao* *xizhuang* *wo* *chuan* *zhonghao* ~~*xizhuang*~~
you wear large suit I wear medium suit
'You wear large-size suits, I wear medium-size.'

b. 你 喜歡 白色 襪子 還是 黑色 ~~襪子~~？
ni *xihuan* *baise* *wazi* *haishi* *heise* ~~*wazi*~~*?*
you like white sock or black sock
'Do you like white or black socks?'

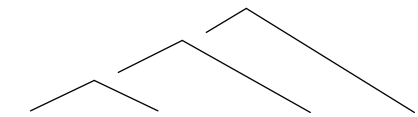
c. 他 有 很多 書， 我 也 有 很多 ~~書~~
ta *you* *henduo* *shu* *wo* *ye* *you* *henduo* ~~*shu*~~
he have lots-of book I too have many book
'He has lots of books, I too have many.'

Recall property (6), that N is the head. Thus, though property (2) favors neither the left- nor right-branching analysis (property (6) and property (2) taken together), the left-branching analysis has a distinct advantage.

Property (3), where C/M can also be elided, if N is also elided and Num is a high number and a round figure, may seem to favor right-branching, where [C/M N] forms a constituent. However, the reality is just the opposite. As pointed out in §3, the reason a high number round figure is required for this ellipsis is because such a number, e.g. 三百 *sanbai* '300', has precisely the same underlying mathematical structure [*multiplier* × *multiplicand*] that [Num C/M] has. This thus indicates once again that [Num C/M] forms a constituent, excluding N. Ellipsis of N and that of C/M thus happen independently and successively, first N and then C/M, both head-ellipsis.

Having [Num C/M] as N's modifier also affords property (4) a simple uniform treatment, where [C/M N] as a single constituent merges with *-de*, as shown in (46). Even though the exact syntactic status of *de* is controversial, there is a clear consensus that *-de* introduces a modifier in [[XP-*de*] N]. A left-branching analysis enjoys this simple analysis of *-de*. A right-branching structure must have *-de* inserted between the head C/M and the complement NP, without having [Num C/M] as a constituent.

(46) Unified left-branching structure with *-de*



Num	C/M	*-de*	N
san	*ben*/*xiang*	*-de*	*shu*
three	C/M-box	DE	book

However, (46) does have its drawbacks, as keenly observed by Zhang (2011), who raises two objections. First, as mentioned earlier, pre-C modifiers and Num must scope over N, but the left-branching structure does not allow this as the pre-C modifiers do not c-command N. Second, C also does not c-command N and thus it is difficult for individual C's to impose selectional restrictions on N. We shall address these problems in §5.2, taking advantage of LFG's f-structure.

Property (5), where Num is optional only if its value is precisely *one*, also favors left-branching. Again, the math behind [Num C/M] is uniformly of the structure [*multiplier* × *multiplicand*], and therefore, as seen in (16) in §2.2, C, the *multiplicand* with the precise value of *1*, can be omitted if the style requires. Likewise, when Num, the *multiplier*, has the precise value of *1*, it too can be omitted. A right-branching structure, where [Num C/M] do not form a constituent at all, does not afford this insight.

Finally, the seventh common property, that both C/M allow *ban* 'half' or *duo* 'more' to follow, also favors the left-branching tree, where [Num C/M *ban*/*duo*] form a single constituent as a coherent quantifier of N and also receive a natural analysis, i.e. [[Num × C/M] + *ban*/*duo*], one that resembles natural numbers, e.g. [[8 × 10] + *3*] for 八十三 *ba shi san* '83'. The right-branching structure, [Num [C/M N]], does not possibly allow [Num C/M-*ban*/*duo*] to form a constituent and thus fails to account for the mathematics in this construction.

The evidence so far thus favors the unified left-branching analysis. But before we move on to solve the scope problems, we shall examine another crucial support, from word order typology. In his seminal paper entitled 'On the history of classifiers in Archaic and Medieval Chinese', Peyraube (1998) establishes that there have been six word orders in total as far as Num, C/M, and N are concerned, as shown in (47a).[7] Note that, with C/M taken to be of the same category, the six patterns can be reduced to two groups, as in (47b).

[7] Peyraube (1998) in fact listed one more word order, N_1 + Num + N_2, and thus seven all together. However, this order is merely an instance of (47a), Num + N and thus is not included. There are essentially just six word orders.

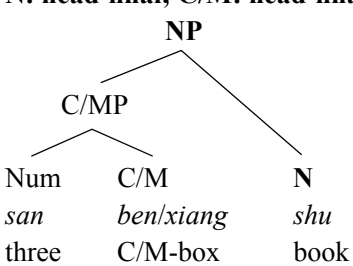
(47) a. Six word orders among Num, C/M, and N in history (Peyraube 1998)
   i. Num + N
   ii. N + Num
   iii. Num + C + N
   iv. N + Num + C
   v. Num + M + N
   vi. N + Num + M

   b. Six word orders reduced
   i. Num + N; N + Num
   ii. Num + C/M + N; N + Num + C/M

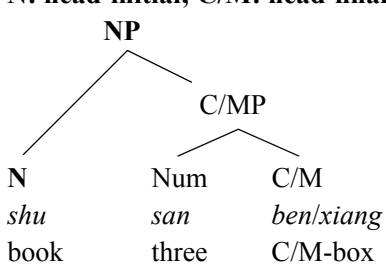
It is most telling that the two orders within each pair are mirror images if the [Num C/M] sequence is taken to be a constituent, which we shall call C/MP. Note also that the first pair in (47b) are without C. As we have already seen, even in today's Chinese, C is optional stylistically; [Num (C)] can therefore be seen as an instance of C/MP as well. The end result of this reduction is shown in (48), i.e. the six actual orders in the 3000 years of history can be rather elegantly accounted for by the head parameter under the assumption of the [Num C/M] constituency and N as the head in the left-branching [[Num C/M] N]; this result is shown in (48a) and (48b).

(48) Attested word orders in Chinese history and cross-linguistically

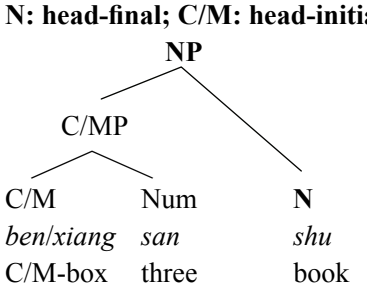
a. N: head-final; C/M: head-final



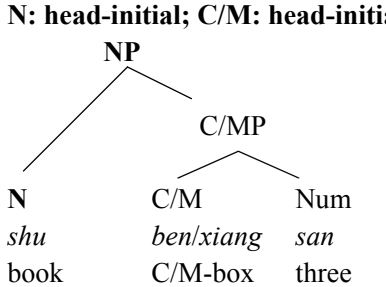
b. N: head-initial; C/M: head-final



a′. N: head-final; C/M: head-initial



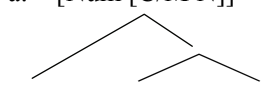
b′. N: head-initial; C/M: head-initial



Note that the head parameter likewise applies to C/MP, where C/M is taken to be the head. The end result of applying the head-parameter on both C/M and N, shown in (48), is exactly the four attested word orders that Greenberg (1990a:185) has found in the classifier languages of the world, confirmed also by Aikhenvald (2000:104-105) in her influential book. A single c-structure where [Num C/M] forms a constituent first, either head-initially or head-finally, before merging with the head noun, again in either a head-initial or head-final fashion, comprehensively and accurately accounts for the word orders in language. A unified right-branching account or a split c-structure account, on the other hand, would over-generate as well as under-generate.

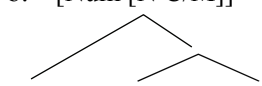
(49) Word orders predicted by [C/M N] constituency

a. [Num [C/M N]]



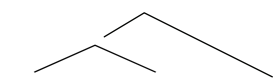
Num	C/M	**N**
san	(*ben*)/*xiang*	*shu*
three	C/M-box	book

b. *[Num [N C/M]]



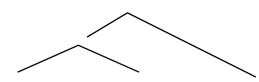
Num	**N**	(C)/M
san	*shu*	(*ben*)/*xiang*
three	book	C/M-box

a′. *[[C/M N] Num]



C/M	**N**	Num
(*ben*)/*xiang*	*shu*	*san*
C/M-box	book	three

b′. [[N C/M] Num]



N	(C)/M	Num
shu	(*ben*)/*xiang*	*san*
book	C/M-box	three

Under the [C/M N] constituency, there are also four possibilities, as shown in (49). Yet, (49a′) and (49b′) are predicted to be viable options for Chinese, incorrectly; furthermore, (49b) and (49a′) do not appear in any language. The [C/M N] constituency also fails to account for the [N Num C/M] order, which did occur in Chinese history and also elsewhere, and the attested [C/M Num N] order.

One might adopt (49a) in the mainstream derivational framework and resort to movement to account for the attested historical and cross-linguistic word order variations in (48). As a concrete illustration, Cinque (2005) proposes a single, universal, order of Merge, shown in (50) and also a leftward NP-raising to account for the word order variations in the nominal structure cross-linguistically.

(50) Universal order of Merge in the nominal structure (Cinque 2005)
[Q_{univ}.. [Dem.. [Num_{ord}.. [RC.. [Num_{card}.. [Clf.. [A.. NP]]]]]]]

Relevant to our discussion is this order of merge, Num > C/M > N. The unmarked option in languages, e.g. Modern Chinese, is thus [Num [C/M N]], precisely the right-branching account. Mathematically, there are six possible orders among Num, C/M, and N, and as seen in (48), only four are attested. Let us see how Cinque's proposal actually fares in accounting for the C/M word order typology.

(51) Word orders derived following Cinque's (2005) proposal

a. [Num C/M N] (*attested*)
N does not raise; can be derived.
Prediction correct.

b. [N Num C/M] (*attested*)
N raises around C/M and Num; can be derived.
Prediction correct.

c. [C/M Num N] (*attested*)
N does not move, but the two elements to its left are in the wrong order of merge; cannot be derived.
Prediction incorrect*; *under-generates.

d. [N C/M Num] (*attested*)
N moves around C/M and Num with Pied-piping of the *whose picture*-type; can be derived.
Prediction correct.

e. [C/M N Num] (*unattested*, *no languages*)
N raises one notch with Pied-piping of *picture of who*-type; can be derived.
Prediction incorrect*; *over-generates.

f. [Num N C/M] (*unattested*, *no languages*)
N moves around C/M, with vacuous Pied-piping of the *whose picture*-type; can be derived.
Prediction incorrect*; *over-generates.

Like the non-movement account of [C/M N] constituency, the application of Cinque's (2005) movement-based proposal also leads to over-generation as well as under-generation. The unified left-branching account in (48) is straightforward and simple, and should thus be preferred.

5.2 An f-structure analysis

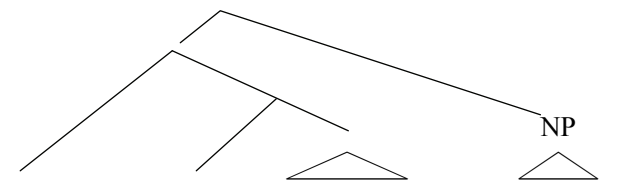
Something must give, if not in the c-structure, then it must be in the f-structure, to account for the C/M differences in scope phenomena. Likewise, the fact that the

left-branching c-structure, repeated in (52), fails to account for the agreement relation between C and N indicates this relation needs to be accounted for in the f-structure.

(52) Unified left-branching structure

a. 重重的 三 大 本 厚 書
zhongzhongde *san* *da* *ben* *hou* *shu*
heavy three big C thick book
'three heavy big thick books'

b. 重重的 三 大 箱 厚 書
zhongzhongde *san* *da* *xiang* *hou* *shu*
heavy three big M-box thick book
'three heavy big boxes of thick books'



The solution is clear: C and N must be co-heads in terms of f-structure, while M heads its own phrase as N's quantifier. Other cases of co-heads are generally between a functional category and its structural complement, e.g. D and NP, T and VP, C and TP. Adopting the notion that C is more functional than M (e.g. Kubo 1996, Vos 1999, van Riemsdijk 1998, and H&H), C naturally serves as a co-head of N, and thus anything that scopes over C must scope over its co-head N. In addition, as co-heads, C and N must have compatible f-structure information and this is exactly how C-N agreement is accomplished. In fact, Hsieh (2009), Her (to appear), Her & Lai (to appear), and Her & Hsieh (2011)'s insight that C functions cognitively as a profiler can be easily implemented as f-structure features in C as well as N. A sample of the relevant lexical entries is given in (53), with irrelevant and minor details left out.

(53) Sample Lexical Entries

a. *shu* 書 N
(↑ PRED) = 'BOOK'
(↑ PROFILABLE) = {BEN 本, CE 冊}

b. *san* 三 Num
(↑ CARD) = 3

c. *ben* 本 CM
(↑ PROFILED) = BEN 本

d. *xiang* 箱 CM
(↑ PRED) = 'BOX'

Note first that classifiers (C) and measure words (M) are assigned to a single lexical category, i.e. CM. This captures the fact that they share the same c-structures and are thus mutually exclusive. Their differences are located in f-structure. C has no PRED, but M does; C, however, has a feature PROFILED, whose value is the essential property each C serves to highlight. Note also that, though a C profiles an essential feature of the N, it does not mean a noun can only have one of its essential features profiled. Indeed, a noun may co-occur with one or more C's, though only one at a time as a formal requirement. 書 *shu* 'book', for example, normally takes the C *ben* 本, but *ce* 冊 is also an option. This is accounted for by the feature PROFILABLE of count nouns, which takes a set, e.g. {BEN 本, CE 冊}, as its value. A sample of relevant annotated phrase structure rules is given in (54), again with irrelevant and minor details left out.

(54) Sample Annotated Phrase Structure Rules

a. NP → … CMP … N
(↓ PRED) =>[8] ↑=↓
(↑ QUANTIFIER) = ↓
¬ (↓ PRED) =>
↑=↓
(↓ PROFILED) $\in_c$ (↑ PROFILABLE)[9]

b. CMP → … Num … CM
↑=↓ ↑=↓
((↑CARD) = 1)[10]

[8] I follow Falk (2001) in using a more straightforward notation 'A ⇒ B' to express 'IF A THEN B' in LFG. Mary Dalrymple (p.c.) has suggested to me that in LFG 'IF A THEN B ELSE C' can be expressed as { ¬A C | A B }, meaning either [NOT-A AND C] or [A AND B], thus either we have A and then we also have B, or we do not have A and in that case we have C, making C the elsewhere condition. Thus, 'IF A THEN B' can be expressed as { ¬A | A B }.

[9] The expression 'A $\in_c$ B' means 'A must be a member of B'.

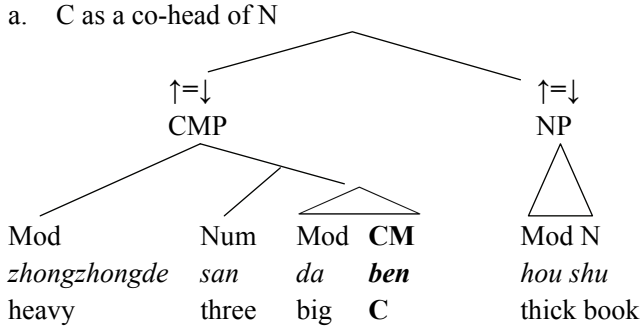
[10] The parentheses around an entire functional expression E indicates that E is optional.

The rule of (54b) builds CMP straightforwardly, where Num and CM are co-heads. The last equation is optional, which accounts for the fact that the numeral 1 may be optional. In (54a), CMP is first checked and see if it contains PRED. If it does, then it serves as a QUANTIFIER function to the head NP. If it has no PRED, then CMP is a co-head to N, and the agreement between its PROFILED feature and N's PROFILABLE feature is then accomplished by the constraint that the value of the former, e.g. *ben* 本, must be a member of the set value of the latter, e.g. {BEN 本, CE 冊}.

Tying it all together, the split f-structures that C/M project are shown in (55a) and (55b), respectively, with information of various modifiers also schematically indicated. Note that, following Falk (2001), the use of double quotes is a shorthand to get around giving detailed information in a subsidiary f-structure, thus similar to the use of triangles in c-structures.

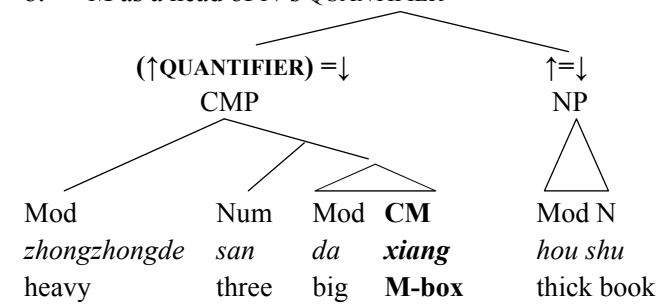
(55) Split f-structure

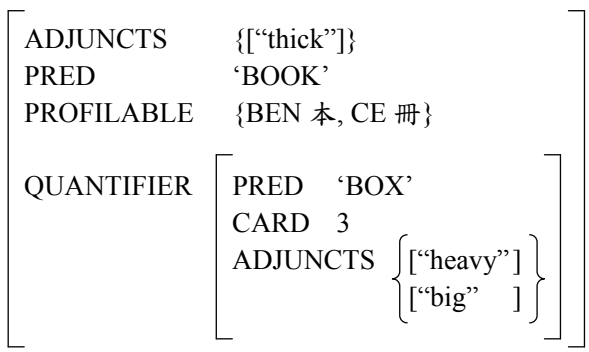
a. C as a co-head of N



$$\begin{bmatrix} \text{PRED} & \text{'BOOK'} \\ \textbf{PROFILED} & \textbf{BEN 本} \\ \text{PROFILABLE} & \{\text{BEN 本, CE 冊}\} \\ \text{CARD} & 3 \\ \text{ADJUNCTS} & \left\{ \begin{bmatrix} \text{"heavy"} \end{bmatrix} \begin{bmatrix} \text{"big"} \end{bmatrix} \begin{bmatrix} \text{"thick"} \end{bmatrix} \right\} \end{bmatrix}$$

b. M as a head of N's QUANTIFIER





Within this f-structure analysis, C/M differences in adjectival and quantification scope as well as C-N agreement can all be captured. Central to this f-structure solution is allowing C, but not M, to be a co-head with N.

6. Concluding remarks

This paper is concerned with the syntactic analysis of classifiers (C) and measure words (M) in a [Num C/M N] phrase. C/M differ semantically in that C profiles an essential feature of the noun, while M provides accidental features to the noun. Mathematically, the [Num C/M] constituent and high number round figures share the same internal multiplication-based structure, e.g. 三百 *san bai* '300' and 三打 *san da* '3 dozens' are analyzable as [3 × *bai*/*da*], or [3 × *100*/*12*]. Thus, C/M function alike as the multiplicand, with Num as its multiplier; yet, C/M differ in their value, C = *1*, M = ¬*1*. Cognitively, C uniquely serves the function to *profile* an essential feature in the semantic frame provided by the head noun.

Grammatically, C/M differ in scope phenomena. While C is transparent, in that it allows numeral quantification and adjectival scope to include N, M is opaque. Otherwise, C/M behave the same and share seven common properties: (1) C/M are

mutually exclusive, (2) N can be elided, (3) C/M can also be elided along with N, if Num is a high number round figure, (4) C/M both allow *-de* insertion, (5) Num is optional if its equals *one*, (6) N is the head, and (7) C/M both allow *ban* 'half' and *duo* 'more' to follow.

Previous syntactic accounts come in two varieties, exhausting the two logical options: unified analysis for C/M and split analysis for C/M. Within the unified camp, some propose a uniform left-branching structure, others right-branching. The left-branching option captures the parallel internal structure of high number round figures, i.e. [$n \times base$], and that of [Num C/M] as a constituent, but fails to offer a configurational account for C/M differences in scope phenomena. The right-branching counterpart is just the opposite. It fails to capture the parallel internal structure of high number round figures and that of [Num C/M], which is not a constituent at all, but it does allow a structural account for C/M differences in scope phenomena, where C is assumed to be more functional and thus less lexical than M. A split analysis, where C appears in a left-branching structure and M right-branching, nicely accounts for C/M differences in scope phenomena straightforwardly in terms of c-command, but now what C/M have in common cannot be generalized and each common property needs to be analyzed differently structurally.

The solution offered for this catch-22 dilemma is formulated in the framework of Lexical Functional Grammar (LFG), where syntax is factored into a (constituent) c-structure and a (functional) f-structure. The phrase [Num C/M N] is argued to have a uniform left-branching c-structure, which best captures the seven properties C/M have in common as well as the underlying mathematical structure of [*multiplier* × *multiplicand*] between Num and C/M. The C/M differences in scope are captured in f-structure, where C and N are co-heads. Whatever modifies C thus also modifies N. Agreement between C and N is likewise naturally accounted for by the two co-heads' unification. M, on the other hand, heads its own projection and forms the QUANTIFIER function of the head noun.

To the extent that such a solution to the C/M dilemma is difficult in a purely constituent-based framework but it is not only available but also rather natural within LFG's parallel architecture of c- and f-structures, having a separate independent feature structure proves to be on the right track and needs to be seriously considered as an integral part of UG.

References

Adams, Karen, and Nancy F. Conklin. 1973. Toward a theory of natural classification. *Chicago Linguistic Society* (*CLS*) 9:1-10. *Chicago Linguistic Society:* Chicago Linguistic Society.

Aikhenvald, Alexandra Y. 2000. *Classifiers: A Typology of Noun Categorization Devices*. Oxford & New York: Oxford University Press.

Au Yeung, Wai Hoo Ben. 2005. *An Interface Program for Parameterization of Classifiers in Chinese.* Hong Kong: Hong Kong University of Science and Technology dissertation.

Au Yeung, Wai Hoo Ben. 2007. Multiplication basis of emergence of classifiers. *Language and Linguistics* 8.4:835-861.

Borer, Hagit. 2005. *Structuring Sense*, Vol. 1: *In Name Only*. Oxford: Oxford University Press.

Bresnan, Joan. 2001. *Lexical-Functional Syntax*. Malden: Blackwell.

Bresnan, Joan, and Jonni Kanerva. 1989. Locative inversion in Chichewa: a case study of factorization in grammar. *Linguistic Inquiry* 20.1:l-50.

Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.

Cheng, Lisa L.-S., and Rint Sybesma. 1998. *Yi-wan tang*, *yi-ge tang*: classifiers and massifiers. *Tsing Hua Journal of Chinese Studies*, New Series 28.3:385-412.

Cheng, Lisa L.-S., and Rint Sybesma. 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30.4:509-542.

Cheng, Lisa L.-S., and Rint Sybesma. 2005. Classifiers in four varieties of Chinese. *The Oxford Handbook of Comparative Syntax*, ed. by Guglielmo Cinque & Richard S. Kayne, 259-292. Oxford & New York: Oxford University Press.

Cinque, Guglielmo. 2005. Deriving Greenberg's Universal 20 and its exceptions. *Linguistic Inquiry* 36.3:315-332.

Comrie, Bernard. 2006. Numbers, language, and culture. Paper presented at the 16th Jyväskylä Summer School, July 24-August 11, 2006. Jyväskylä, Finland: University of Jyväskylä.

Comrie, Bernard. 2011. Numeral bases. *The World Atlas of Language Structures Online*, ed. by Matthew S. Dryer & Martin Haspelmath. München: Max Planck Digital Library, Chapter 131. Available online at http://wals.info/feature/131. Accessed on 2011/08/03.

Croft, William. 1994. Semantic universals in classifier systems. *Word* 45.2:145-171.

Falk, Yehuda N. 2001. *Lexical-Functional Grammar: An Introduction to Parallel Constraint-Based Syntax*. Stanford: CSLI.

Fillmore, Charles J. 1982. Frame semantics. *Linguistics in the Morning Calm*, ed. by Linguistic Society of Korea, 111-137. Seoul: Hanshin.

Fukui, Naoki, and Yuji Takano. 2000. Nominal structure: an extension of the symmetry principle. *The Derivation of VO and OV*, ed. by Peter Svenonius, 219-254. Amsterdam & Philadelphia: John Benjamins.

Gil, David. 2011. Numeral classifiers. *The World Atlas of Language Structures Online*, ed. by Matthew S. Dryer & Martin Haspelmath. München: Max Planck Digital Library, Chapter 55. Available online at http://wals.info/feature/55. Accessed on 2012/5/26.

Greenberg, Joseph H. 1990a. Numeral classifiers and substantival number: problems in the genesis of a linguistic type. *On Language: Selected Writings of Joseph H. Greenberg*, ed. by Keith M. Denning & Suzanne Kemmer, 166-193. Stanford: Stanford University Press.

Greenberg, Joseph H. 1990b. Dynamic aspects of word order in the numeral classifier. *On Language: Selected Writings of Joseph H. Greenberg*, ed. by Keith M. Denning & Suzanne Kemmer, 227-240. Stanford: Stanford University Press.

Her, One-Soon. (to appear). Distinguishing classifiers and measure words: a mathematical perspective and implications. *Lingua*.

Her, One-Soon, and Chen-Tien Hsieh. 2010. On the semantic distinction between classifiers and measure words in Chinese. *Language and Linguistics* 11.3:527-551.

Her, One-Soon, and Chen-Tien Hsieh. 2011. A frame-profile approach to classifiers: a case study of Taiwan Mandarin. Manuscript. Taipei: National Chengchi University.

Her, One-Soon, and Wan-Jun Lai. (to appear). Classifiers: the many ways to profile '*one*', a case study of Taiwan Mandarin. *International Journal of Computer Processing of Oriental Languages*.

Hsieh, Chen-Tien. 2009. *A Frame-Based Approach to Classifiers: A Case Study of Taiwan Mandarin*. Taipei: National Chengchi University MA thesis.

Hsieh, Miao-Ling. 2008. *The Internal Structure of Noun Phrases in Chinese*. Taipei: Crane.

Huang, C.-T. James. 1982. *Logical Relations in Chinese and the Theory of Grammar*. Cambridge: MIT dissertation.

Huang, C.-T. James. 1987. Existential sentences in Chinese and (in)definiteness. *The Representation of (In)definiteness*, ed. by Eric J. Reuland & Alice G. B. ter Meulen, 226-253. Cambridge: MIT Press.

Jackendoff, Ray S. 1977. *X' Syntax: A Study of Phrase Structure Grammar*. Cambridge: MIT Press.

Krifka, Manfred. 1995. Common nouns: a contrastive analysis of Chinese and English. *The Generic Book*, ed. by Gregory N. Carlson & Francis Jeffry Pelletier, 398-411. Chicago: University of Chicago Press.

Krifka, Manfred. 2003. Bare NPs: Kind-referring, indefinites, both, or neither? *Proceedings of the 13th Semantics and Linguistic Theory Conference* (SALT 13), ed. by Robert B. Young & Yuping Zhou, 180-203.

Kubo, Miori. 1996. Some considerations on noun classes and numeral classifiers: a study of (pseudo-)partitives in Japanese and English. *Keio Studies in Theoretical Linguistics I*, ed. by Yuji Nishiyama & Yukio Otsu, 89-124. Tokyo: Institute of Cultural and Linguistic Studies, Keio University.

Landman, Fred. 2004. *Indefinites and the Type of Sets*. Malden: Blackwell.

Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar*, Vol. 1: *Theoretical Prerequisites.* Stanford: Stanford University Press.

Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.

Li, XuPing. 2011. *On the Semantics of Classifiers in Chinese*. Ramat Gan: Bar-Ilan University dissertation. Available online at: http://www.semanticsarchive.net/Archive/mY3YWYzO/. Accessed on 2011/09/18.

Li, XuPing, and Susan Rothstein. 2012. Measure readings of Mandarin classifier phrases and the particle *de*. *Language and Linguistics* 13.4:693-741.

Lin, Jo-wang. 1997. Noun phrase structure in Mandarin Chinese: DP or NP? *Chinese Languages and Linguistics*, Vol. 3: *Morphology and Lexicon*, ed. by Feng-fu Tsao & H. Samuel Wang, 401-434. Taipei: Institute of History and Philology, Academia Sinica.

Norman, Jerry. 1988. *Chinese*. Cambridge & New York: Cambridge University Press.

Paris, Marie-Claude. 1981. *Problèmes de Syntaxe et de Sémantique en Linguistique Chinoise*. Paris: Collège de France, Institut des Hautes Études Chinoises.

Paris, Marie-Claude, and Marie-Thérèse Vinet. 2010. Approximative *zuǒyòu* 'around, about' in Chinese. *Language and Linguistics* 11.4:767-801.

Peyraube, Alain. 1998. On the history of classifiers in Archaic and Medieval Chinese. *Studia Linguistica Serica*, ed. by Benjamin K. T'sou, 131-145. Hong Kong: Language Information Sciences Research Centre, City University of Hong Kong.

Robertson, Teresa. 2008. Essential vs. accidental properties. *The Stanford Encyclopedia of Philosophy*, ed. by Edward Zalta. Available online at: http://plato.stanford.edu/entries/essential-accidental. Accessed on 2009/12/01.

Saito, Mamoru, T.-H. Jonah Lin, and Keiko Murasugi. 2008. N´-ellipsis and the structure of noun phrases in Chinese and Japanese. *Journal of East Asian Linguistics* 17.3: 247-271.

Selkirk, Elisabeth O. 1977. Some remarks on noun phrase structure. *Formal Syntax*, ed. by Peter W. Culicover, Thomas Wasow & Adrian Akmajian, 285-316. New York: Academic Press.

Tai, James H-Y. 1994. Chinese classifier systems and human categorization. *In Honor of William S-Y. Wang: Interdisciplinary Studies on Language and Language Change*, ed. by Matthew Y. Chen & Ovid J. L. Tzeng, 479-494. Taipei: Pyramid Press.

Tai, James H-Y., and Lianqing Wang. 1990. A semantic study of the classifier *tiao*. *Journal of the Chinese Language Teachers Association* 25.1:35-56.

Tang, Chih-Chen Jane. 1990. A note on the DP analysis of Chinese noun phrases. *Linguistics* 28.2:337-354.

Tang, Chih-Chen Jane. 2005. Nouns or classifiers: a non-movement analysis of classifiers in Chinese. *Language and Linguistics* 6.3:431-472.

van Riemsdijk, Henk. 1998. Categorial feature magnetism: the endocentricity and distribution of projections. *Journal of Comparative Germanic Linguistics* 2.1:1-48.

Vos, Riet. 1999. *A Grammar of Partitive Constructions*. Tilburg: Tilburg University dissertation.

Watanabe, Akira. 2006. Functional projections of nominals in Japanese: syntax of classifiers. *Natural Languages and Linguistic Theory* 24.1:241-306.

Wilhelm, Andrea. 2008. Bare nouns and number in Dëne Sųłiné. *Natural Language Semantics* 16.1:39-68.

Zhang, Niina Ning. 2009. Syntactic properties of numeral classifiers in Mandarin Chinese. Talk given on April 10, 2009, at the Graduate Institute of Linguistics, National Chung Cheng University. Accessed online, December 1, 2009. http://www.ccunix.ccu.edu.tw/~lngnz/index.files/May%202009.pdf

Zhang, Niina Ning. 2011. The constituency of classifier constructions in Mandarin Chinese. *Taiwan Journal of Linguistics* 9.1: 1-50.

Zhu, Dexi. 1982. *Yufa Jiangyi* [*Lectures on Grammar*]. Beijing: The Commercial Press.

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Graduate Institute of Linguistics &
Research Center of Mind, Brain, and Learning
National Chengchi University
64, Sec. 2, Zhinan Road
Taipei 116, Taiwan
hero@nccu.edu.tw

分類詞與量詞的句法結構：詞彙功能語法的分析

何萬順

國立政治大學

對於數詞 (Num)、分類詞與量詞 (C/M)、名詞 (N)，如「三匹馬」或「三箱書」，三者之間的結構，先前的看法可分三種，一是 [Num C/M] 先形成詞組，二是 [C/M N] 先形成詞組、三是兩種結構都需要。本文主旨在於論證 [Num C/M] 的結構不僅能捕捉 C/M 兩者之間的共通性（例如兩者在數學上均可解讀爲被乘數，其質分別爲 *1* 與 ¬*1*），同時在類型學上也能完整解釋 [Num C/M N] 在語言中存在的四種詞序；相形之下，另外兩種看法均會產生過度生成 (overgeneralization) 與生成不足 (undergeneralization) 的缺失。本文並在詞彙功能語法 (Lexical-Functional Grammar, LFG) 的理論架構下對漢語分類詞與量詞做出形式分析。C/M 兩者的詞組結構 (c-structure) 相同；但其功能結構 (f-structure) 不同：分類詞與 N 同爲中心語 (co-heads)，在此也表現出分類詞如何彰顯 (profile) N 的某項本質特徵，而量詞的功能則是 N 的 QUANTIFIER。

關鍵詞：分類詞，量詞，詞組結構，功能結構，彰顯，乘法，被乘數

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BIBLIOGRAPHY ON CHINESE CLASSIFIERS AND MEASURE WORDS*

One-Soon Her[1,2], Wan-Ting Li[1], Yu-Hsuan Chen[1]
[1]*Graduate Institute of Linguistics*
[2]*Research Center of Mind, Brain, and Learning*
National Chengchi University

Books, Monographs, and Book Chapters 專書與專書篇章

Adams, Karen L. 1986. Numeral classifiers in Austroasiatic. *Noun classes and categorization*, ed. by Colette G. Craig, 241-262. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Aikhenvald, Alexandra Yrievna. 2003. *Classifier: A Typology of Noun Categorization Devices.* Oxford University Press.

Berlin, Brent. 1992. *Ethnobiological classification: Principles of categorization of plants and animals in traditional societies.* Princeton, NJ: Princeton University Press.

Bisang, Walter. 1999. Classifiers in East and South East Asian languages. *Numeral Types and Changes Worldwide*, ed. by Jadranka, Gvozdanović, 113-86. Berlin, New York: Mouton de Gruyter.

Borer, Hagit. 2005. Structuring Sense. *Name Only, Vol. 1*. Oxford: Oxford University Press.

Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.

Cheng, Lisa Lai-Shen and Rint Sybesma. 2005. Classifiers in four varieties of Chinese. *Handbook of Comparative Syntax*, ed. by Colette G. Craig. and Richard S. Kayne Oxford University Press.

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Chierchia, Gennaro. 1998. Plurality of mass nouns and the notion of semantic parameter. In *Events and Grammar*, ed. by S. Rothstein, 53-103. Dordrecht: Kluwer.

Clark, Eve V. 1976. *Universal Categories: On the Semantics of classifiers and children's early word meanings. In Linguistic Studies*, ed. by Joseph Greenberg, A. Juiland, 449-462. Saratoga, CA: Anma Libri.

Denny, Peter John. 1986. The semantic role of noun classifiers. *Noun Classes and Categorization*, ed. by Colette G. Craig, 279-308. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Delancey, Scott. 1986. Toward a history of Tai classifier systems. *Noun Classes and Categorization*, ed. by Colette G. Craig, 437-452. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Dixon, Robert Malcolm Ward. 1986. Noun classes and noun classification in typological perspective. *Noun Classes and Categorization*, ed. by Colette G. Craig, 105-113. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Downing, Pamela. 1986. The anaphoric use of classifiers in Japanese. *Noun Classes and Categorization*, ed. by Colette G. Craig, 345-375. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Downing, Pamela. 1996. *Numeral Classifier Systems.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

Erbaugh, Mary S. 1986. Taking stock: The development of Chinese noun classifiers historically and in young children. *Noun Classes and Categorization*, ed. by Colette G. Craig, 399-436. Amsterdam: John Benjamins Publishing Company.

Gao, Qian. 1993. Chinese NP structure, ed. by Andreas Kathol and Carl Pollard, *Ohio State University Working Papers in Linguistics*, 42.

Gil, David. 2011. Numeral classifiers. *The World Atlas of Language Structures Online*, ed. by Haspelmath, Martin, Dryer, Matthew S., Gil, David and Comrie, Bernard T Munich: Max Planck Digital Library, chapter 55. Available online at http://wals.info/feature/55.

Greenberg, Joseph. 1990[1972]. Numerical classifiers and substantival number: problems in the genesis of a linguistic type. *On language. Selected writings of Joseph H. Greenberg*, ed. by Keith Denning and Suzanne Kemmer, 166-193. Stanford, CA: Stanford University Press. [First published 1972 in *Working Papers on Language Universals* 9: 1-39. Stanford, CA: Department of Linguistics, Stanford University.]

Greenberg, Joseph. 1990[1974]. Studies in numerical system: Double numeral system. *On language. Selected writings of Joseph H. Greenberg*, ed. by Keith Denning and Suzanne Kemmer, 194-206. Stanford, CA: Stanford University Press. [First published 1974 in *Working Papers on Language Universals* 14: 75-89. Stanford, CA: Department of Linguistics, Stanford University.]

Greenberg, Joseph. 1990[1975]. Dynamic aspects of word order in numeral classifier. *On language. Selected writings of Joseph H. Greenberg*, ed. by Keith Denning and Suzanne Kemmer, 227-240. Stanford, CA: Stanford University Press. [First published 1974 in *Word order and word order change*, ed. by C. Li, 27-46. Austin, University of Texas Press.]

Grinevald, Colette. 2000. A morphosyntactic typology of classifiers. *Systems of Nominal Classification,* ed. by Gunter Senft, 50-92. Cambridge, Cambridge University Press.

Gu, Yang and Wu, Da. 2005. Cong Jingpoyu han Yiyu de liangci duanyu kan mingci duanyu de zhishe tezheng (Implications of Jingpho and Yi classifier phrase on noun phrase referentiality). *Hanzangyu linagci Yanjiu* 'Studies of Classifiers in Sino-Tibetan', ed. by Li Jingfang and Hu Suhua, 55-89. Beijing: The Central University of Nationalities Press.

Hsieh, Miao-Ling. 2008. *The Internal Structure of Noun Phrases in Chinese.* Taipei: Crane Publishing Co., Ltd.

Hurford, James R. 1987. *Language and Number: The Emergence of a Cognitive System.* Oxford: Blackwell.

Hu, Qian. 1993. Overextension of Animacy in Chinese Classifier Acquisition. *The Proceedings of the Twenty-fifth Annual Child Language Research Forum*, ed. by E. Clark, 127-136. Center for the Study of Language and Information, Stanford, California,.

Imai, Mutsumi and Mazuka, Reiko. 2003. Re-evaluation of linguistic relativity: Language-specific categories and the role of universal ontological knowledge in the construal of individuation. *Language in Mind: Advances in the study of language and thought*, ed. by Dedre Gentner and Susan Goldin-Meadow. Cambridge, MA: MIT Press.

Jiao, Fan. 1993. *Learning Chinese Measure Words.* Beijing: Sinolingua.

Kyounghee, Paik and Francis Bond. 2002. Spatial representation and shape classifiers in Japanese and Korean. *The Construction of Meaning*, ed. by David I. Beaver, Luis D. Casillas Mart´ınez, Brady Z. Clark, and Stefan Kaufmann, 163-180. CSLI Publications, Stanford CA.

Lakoff, George. 1986. Classifiers as a reflection of mind. *Noun Classes and Categorization*, ed. by Colette Craig, 13-52. Amsterdam: John Benjamins Publishing Company.

Lakoff, George.1986. Classifiers as a reflection of mind. *Noun Classes and Categorization,* ed. by Colette G. Craig, of Typological Studies in Language, 13-51. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Lakoff, George. 1987. *Women, fire, and dangerous things: What categories reveal about the mind.* Chicago: Uni-versity of Chicago Press.

Landman, Fred. 2004. *Indefinites and the Type of Sets*. Malden, MA : Blackwell Pub.

Li Jingfang and Hu Suhua. 2005. *Hanzangyu linagci Yanjiu* 'Studies of Classifiers in Sino-Tibetan'. Beijing: The Central University of Nationalities Press.

Loke, Kit Ken and Godfrey Harrison. 1986. Young Children's Use of Chinese (Cantonese and Mandarin) Sortal Classifiers. *Linguistics, Psychology, and the Chinese Language*, ed. by H. S. R. Kao and Rumjahn Hoosain, 125-146. Centre of Asian Studies, University of Hong Kong, Hong Kong.

Loke, Kit Ken. 1991. A Semantic analysis of young children: Use of Mandarin shape classifiers. *Child Language Development in Singapore and Malaysia*, ed. by Anna Kwan-Terry, 98–116. Singapore University Press, Singapore,.

Masayoshi, Shibatani. 1978. *Nihongo no Bunseki*. Tasishuukan, Tokyo.

Myers, James and Tsay Jane. 2000. The Acquisition of the default classifier in Taiwanes. *Proceedings of The Seventh International Symposium on Chinese Languages and Linguistics*, 87-106. Chia-Yi: National Chung Cheng University.

Pamela, Downing and Michael Noonan. 1995. The anaphoric use of classifiers in Japanese. *Word Order in Discourse*, ed. by Pamela A. Downing and Michael Noonan, 345-375.

Pamela, Downing. 1996. *Numeral Classifier Systems: The Case of Japanese*. J Amsterdam/Philadelphia: John Benjamins Publishing Company.

Rosch, Eleanor. 1978. Principles of categorization. *Cognition and Categorization*, ed. by Eleanor Rosch and Barbara B. Lloyd, 27-48. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Sanches, Mary and Linda Slobin. 1973. *Numeral classifiers and plural marking: An implicational universal.* Working Papers in Language Universals 1, 1-22 Stanford, California: Stanford University.

Schmitt, Bernd H. and Zhang Shi. 1998. Language structure and categorization: A study of classifiers in consumer cognition, judgment, and choice. *Journal of Consumer Research* 25: 108-122.

Shigeru Miyagawa. 1989. *Structure and Case Marking in Japanese*. Academic Press, New York.

Simpson, Andrew. 2005. Classifiers and DP structure in South East Asia, *Handbook of Comparative Syntax,* ed. by Guglielmo Cinque and Richard S. Kayne, 806-838. Oxford University Press, Oxford.

Tai, James. 1992. Variation in classifier systems across Chinese dialects: Towards a cognition-based semantic approach. *Chinese Languages and Linguistics I: Chinese Dialects*, 587-608. Symposium Series of the Institute of History and Philology No. 2. Taipei: Academia Sinica.

Tai, James. 1994. Chinese classifier systems and human categorization. *Honor of Professor William S.-Y. Wang: Interdisciplinary Studies on Language and Language Change*, ed. by Matthew Y. Chen and Ovid J. L. Tzeng, 479-494. Taipei: Pyramid Press.

T'sou, Benjamin Ka-Yin. 1976. The structure of nominal classifier systems. *Austoasiatic Studies*, Vol. 2, ed. by Philip N. Jenner, Stanely Starosta, and Laurence C. Thompson, 1215-1247. Honolulu: University Press of Hawaii.

Wang, Dajin and Zhifang Wu. 1989. *Dictionary of Chinese Classifiers.* Singapore: Heian.

Yang-Drocourt, Zhitang. 2004. *Evolution syntaxique du classificateur en chinois, du XIIIe siècle av. J.-C. au XVIIe siècle* (*Hanyu liangci de chansheng ji qi zaiju fashang de yanbian* 漢語量詞的產生及其在句法上的演變), Paris: École des hautes études en sciences sociales.

Yo, Matsumoto. 1987. Order of Acquisition in the Lexicon: Implication from Japanese Numeral Classifiers. *Children's Language* 7, ed. by K. E. Nelson and A. Kleeck,: 229-260. Lawrence Erlbaum, Hillsdale.

Yo, Matsumoto. 1995. A semantic structure and system for Japanese classifiers based on prototype semantics -Gengo Kenkyu (in Japanese). *The Generative Lexicon*, ed. by James Pustejovsky, 99:82-106. MIT Press.

陳順宇 2004 《多變量分析》，台北：華泰書局。

陳穎 2003 《蘇軾作品量詞研究》，成都：巴蜀書社。

程榮 1996 量詞及其再分類，收錄於胡明揚主編《詞類問題考察》，北京：北京語言文化大學，330-346頁。

戴慶厦 1998 《藏緬語族語言研究（二）》，昆明：雲南民族出版社。

郭銳 2002 《現代漢語詞類研究》，北京：商務印書館。

郭先珍 1987 《漢語量詞的應用》，北京 ： 中國物資出版 ： 新華發行。

何杰 2008 《現代漢語量詞研究》，北京：民族出版社。

洪藝芳 2000 《敦煌吐魯番文書中之量詞研究》，臺北：文津出版社。

洪藝芳 2004 《敦煌社會經濟文書中之量詞研究》，臺北：文津出版社。

李錦芳 2005 《漢藏語系量詞研究》，北京：中央民族大學出版社。

李宇明 2000 《漢語量范疇研究》，武漢：華中師範大學出版社。

劉世儒 1965 《魏晉南北朝量詞研究》，北京：中華書局。

陸志韋 1956 《北京話單音詞詞彙》，北京：科學出版社。

木仕華 2005 論納西語拷貝量詞的語法化，收錄於李錦芳主編《漢藏語系量詞研究》，北京：中央民族大學出版社，141-165頁。

邵敬敏 1993 量詞的語義分析及其與名詞的雙向選擇，收錄於邵敬敏 2007《漢語語法的立體研究》，北京：商務印書館，35-51頁。

石毓智 2000 表物體形狀的量詞的認知基礎，收錄於石毓智著《語法的認知語義基礎》，南昌：江西教育出版社，119-132頁。

孫豔 2005 《入唐求法巡禮行記》的量詞，收錄於李錦芳主編《漢藏語系量詞研究》，北京：中央民族大學出版社，387-408頁。

譚慧敏 1998 略論漢語量詞的起源與發展，收錄於鄒嘉彥編著《漢語研究》。香港城市大學出版。

吳錚 2005 《左傳》個體量詞分析，收錄於李錦芳主編《漢藏語系量詞研究》，北京：中央民族大學出版社，426-433頁。

葉桂郴 2008 《明代漢語量詞研究》，長沙：岳麓書社。

張洪年 1989 粵語量詞用法的研究,《中央研究院第二屆國際漢學會議論文集》台灣：台北。

張麗麗、黃居仁、陳克健、賴慶雄 1997 《國語日報量詞典》，台北：國語日報出版社。

Dissertations 博士論文

Au Yeung, Wai-Hoo Ben. 2005. *An interface program for parameterization of classifiers in Chinese*. PhD. dissertation, Hong Kong University of Science and Technology.

Clark, Brenda-Joyce. 2002. *Noun Classifiers*. PhD. dissertation. University of California, Los Angeles.

Hu, Qian. 1993. T*he Acquisition of Chinese Classifiers by Young Mandarin-speaking Children*. Ph.D. dissertation, Boston University.

Lee, Thomas Hun-Tak. 1986. *Studies on Quantification in Chinese*. Ph.D. dissertation, University of California, Los Angeles.

Li, Xu-Ping. 2011. *On the semantics of classifiers in Chinese*. Ph.D. dissertation, Bar-Ilan University.

Liang, Yu-Chang. 2006. *Nominal Phrases in English and Japanese Speakers' L2 Mandarin Grammars*. Ph.D. dissertation, Cambridge University.

Liang, Szu Yen. 2009. *The acquisition of Chinese nominal classifiers by L2 adult learners*. Ph.D. dissertation, University of Texas at Arlington.

Mak, David . 1991. *The Acquisition of Classifiers in Cantonese*, Ph.D. dissertation, University of Reading.

Muromatsu, Keiko. 1998. *On the syntax of classifiers*. Ph. D. dissertation, University of Maryland.

Ng, Bee Chin. 1989. *The Acquisition of Numeral Classifiers in Hokkien, a Southern Min Language*. PhD dissertation, La Trobe University.

Tran, Jennie. 2011. *The acqusition of Vietnemese classifiers*. Ph.D. dissertation, University of Hawaii.

Yamamoto, Kasumi. 2000. *The acquisition of Japanese numeral classifiers*. Ph.D. dissertation, Cornell University.

Yang, Rong. 2001. *Common nouns, classifiers, and quantification in Chinese*. PhD. dissertation, Newark: the State University of New Jersey.

曹芳宇 2010 《唐五代量詞研究》，南開大學博士論文。

番秀英 2009 《漢語和泰語個體量詞對比研究》，北京語言大學博士論文。

高佳 2007 《漢語服裝量詞的形成及演變研究》，四川大學博士論文。

洪藝芳 2000 《敦煌吐魯番文書中之量詞研究》，國立中正大學博士論文。

蔣穎 2006 《漢藏語系名量詞研究》，中央民族大學博士論文。

李鴻麟 2009 《句法提示與分離性之語言機制：以中文名詞及形狀分類詞為例》，國立臺灣師範大學英語學系博士論文。

李建平 2010 《先秦兩漢量詞研究》，西南大學博士論文。

李明 2007 《西雙版納傣語量詞研究》，中央民族大學博士論文。

李知恩 2011 《量詞的跨語言研究》，北京大學博士論文。

李宗澈 2004 《《史記》量詞研究》，復旦大學博士論文。

劉輝 2009《現代漢語事件量詞的語義和句法》，上海師范大學博士論文。
呂紅梅 2011《現代漢語量詞“個”的研究》，黑龍江大學博士論文。
慎俊浩 2008《漢語數量詞組》，國立清華大學語言學研究所博士論文。
葉桂郴 2005《《六十種曲》和明代文獻的量詞》，湖南師范大學博士論文。
張世寧 2010《廣義量詞理論研究》，南開大學博士論文。
周芍 2006《名詞量詞組合的雙向選擇研究及其認知解釋》，暨南大學博士論文。
宗守云 2008《集合量詞的認知研究》，上海師范大學博士論文。

Journal Articles 期刊論文

Ahrens, Kathleen. 1994. Classifier production in normals and aphasics. *Journal of Chinese Linguistics* 22: 203-247.

Allan, Keith. 1977. Classifiers. *Language* 53: 285-311.

Allan, Keith. 1980. Nouns and countability. *Language* 56*:* 541-567.

Ann, Copestake and Ted Briscoe. 1995. Acquision of lexical translation relations from mrds. *Machine Translation,* 9.3-4: 183-219,

Au, Yeung Wai-Hoo Ben. 2007. Multiplication basis of emergence of classifier. *Language and Linguistics* 8.4: 835-861.

Asako, Iida. 1996. Aspect and classifiers: A study of Japanese classifiers for counting correspondence. *Keio University Colloquia* 17: 125-137.

Bailenson, Jeremy, Shum, M., Atran, C., Medin, D., and Coley, John. 2002. A bird's eye view: biological categorization and reasoning within and across cultures. *Cognition*, 84: 1-53.

Barner, David and Jesse Snedeker. 2005. Quantity judgments and individuation: evidence that mass nouns count, *Cognition* 97.1: 41–66.

Bisang, Walter. 1993. Classifiers, quantifiers and class nouns in Hmong. *Language*, 17.1: 1-51.

Biq, Yung-O., 2002. Classifier and construction: the interaction of grammatical categories and cognitive strategies. *Language and Linguistics* 3.3: 521-542.

Bloom, Paul. 1994. Possible Names: The Role of Syntax-Semantics Mappings in the Acquisition of Nominals, *Lingua* 92: 297-329.

Brown, Roger. 1957. Linguistic Determinism and the Part of Speech. *Journal of Abnormaland Social Psychology* 55: 1-5.

Carpenter, Katie. 1991. Later Than Sooner: Extralinguistic Categories in the Acquisitionof Thai Classifiers, *Child Language* 18: 93-113.

Carpenter, Kathie. 1991. Later Than Sooner: Extralinguistic Categories in the Acquisition of Thai Classifiers, *Child Language* 18: 93-113.

Chang, Smith, Mei-yun. 2000. Empirical evidence for prototypes in linguistic categorization revealed in Mandarin numeral classifiers. *Journal of the Chinese Language Teachers Association* 35.2*:*19-52.

Chappell, Hilary and Sandra Thompson. 1992. The semantics and pragmatics of associative *de*. *Cahiers de Linguistique Asie Orientale* 11.2: 199-230.

Chen, Ping, 2003. Indefinite determiner introducing definite referent: a special use of 'yi one t classifier' in Chinese. *Lingua* 113: 1169-1184.

Cheng, Lisa Lai-Shen and Rint Sybesma. 1998. *Yi-wan Tang, Yi-ge Tang:* Classified and Massifiers. *Tsing Hua Journal of Chinese Studies, New Series* 28.3: 385-412.

Cheng, Lisa Lai-Shen and Rint Sybesma. 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30.4: 509-542.

Chien, Yu-Chin, Lust, Barbara, and Chiang, Chi-Pang. 2003. Chinese children's comprehension of count-classifiers and mass-classifiers, *Journal of East Asian Linguistics* 12: 91-120.

Chierchia, Gennaro. 2006. Broaden your views. implications of domain widening and the logicality of language. *Linguistic Inquiry* 37.4: 535-590.

Chirkova, Katia. 2004. On yi 'one item', lia 'two items', and sa 'three items'. *Journal of the Chinese Language Teachers Association.*

Church, Kenneth Whalum and Patrick Hanks. 1990. Word association norms, mutual information, and lexicography. *Computational Linguistics* 16: 22-29.

Collins, Allan M. and Elizabeth F. Loftus. 1975. A spreading-activation theory of semantic processing. *Psychological Review* 82: 407-428.

Croft, William. 1994. Semantic universals in classifier systems. *Word 45*: 145-171.

Denny, Peter, John. 1979. Semantic analysis of selected Japanese numeral classifiers for units. *Linguistics*, 317-335.

Erbaugh, Mary S. 2002. Classifiers are for specification: complementary functions for sortal and general classifiers in Cantonese and Mandarin. *Cahiers de linguistique- Asie orientale*, 31.1: 33-69.

Fillmore, Charles J., Paul Kay, and Mary Catherine O'Connor. 1988. Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language* 64: 501-538.

Gandour Jacm, Soranee Holasuit Petty, Rochana Dardarananda, Sumalee Dechongkit, and Sunee Mukngoen. 1984. The Acquisition of Numeral Classifiers in Thai. *Linguistics* 22: 455-479.

Gao, Ming and Malt, Barbara. 2008. Mental representation and cognitive consequences of Chinese individual classifiers. *Language and Cognitive Processes*, 1-56.

Gerdts, Donna B. and Mercedes Q. Hinkson. 2004. Salish Numeral Classifiers: A Lexical Means to a Grammatical End. *Sprachtypologie und Universalienforschung* 57.2-3, 247-279.

Goral, Donald. 1978. Numerical Classifier Systems: A Southeast Asian Cross-Linguistic Analysis. *Linguistics of the Tibeto-Burman Area* 4.1, 1-72.

Greenberg, Joseph. 1974. Studies in numerical system: Double numeral system. *Working Papers on Language Universals* 14: 75-89.

Haas, Mary. 1942. The use of numeral classifiers in Thai. *Language* 18: 201-206.

Her, One-Soon. To appear. Distinguishing classifiers and measure words: A mathematical perspective and implications. To appear in *Lingua*.

Her, One-Soon. To appear. Structure of classifiers and measure words: A lexical functional Account. To appear in *Language and Linguistics*.

Her, One-Soon and Hsieh, Chen-Tien. 2010. On the semantic distinction between classifiers and measure words in Chinese. *Language and linguistics* 11.3: 527-551.

Her, One-Soon and Lai, Wan-Jun. To appear. Classifiers: The many ways to profile '*one*', a case study of Taiwan Mandarin. To appear in a special issue (guest editors: Shu-Kai Hsien & Jia-Fei Hong) of *International Journal of Computer Processing of Oriental Languages*.

Hong, Zhang. 2007. Numeral classifiers in Mandarin Chinese. *Journal of East Asian Linguistics* 16.1*:* 43-59.

Hsieh, Miao-Ling. 2005. Two types of modifiers and parallelisms between DPs and TPs in Chinese. *Language and Linguistics* 6.3: 397-429.

Huang, C.-T. James and Ochi, Masao. 2010. Classifiers and nominal structure: a parametric approach and its consequences. *Glow-in-Asia* 13: 1-14.

Huang, Chu-ren. 1996. Classifiers and semantic type coercion: Motivating a new classification of classifiers. *Language, Information and Computation* 11: 1-10.

Huang, Chu-Ren and Ahrens, Kevin. 2003. Individuals, kinds and events: classifier coercion of nouns. *Language Sciences,* 25: 353-373.

Hunt, Earl and Agnoli, Franca. 1991. The Whorfian hypothesis: a cognitive psychology perspective. *Psychological Review* 98.3: 377-389

Hwang, Soonee, Aseun, Yoon, and Hyuk-Chul Kwon. 2008. Semantic representation of Korean numeral classifier and its ontology building for HIT applications. *Language Resources & Evalution* 42: 151-172.

Ikoro, Suanu. 1994. Numeral classfiers in Kana. *Journal of African Languages and Linguistics* 15: 7-28.

Imai, Mutsumi and Gentner, Dedre. 1997. A crosslinguistic study of early word meaning: universal ontology and linguistic influence. *Cognition* 62: 169-200.

Ji, Li Jun, Zhang, Z., and Nisbett, Richard E. 2004. Is it Culture, or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology* 87.1: 57-65.

Jones, Robert Burch. 1970. Classifier constructions in Southeast Asia. *Journal of American Oriental Society* 90.1: 1-12.

Kawashima, Ryokan. 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.

Kayne, Richard. 2007. Several, few and many. *Lingua* 117.5: 832-858.

Keith, Allan. 1977. Classifiers. *Language* 53: 85-311.

Kobuci-Philip, Mana. 2007. Individual-denoting classifiers. *Natural Language Semantics* 15: 95-130.

Kuo, Jenny Yi-Chun. and Maria D. Sera, 2009. Classifier effects on human categorization: The role of shape classifiers in Mandarin Chinese. *Journal of East Asian Linguist,* 18: 1-19.

Lehman, F. K. 1979. Aspects of a formal theory of noun classifiers. Studies in *Language,* 3: 153-180.

Li, Cherry Ing and Wang, Leslie Fu-mei. 2003. Conceptual mapping and functional shift: the case of Taiwan Min cit-e. *Language and Linguistics* 4.2: 403-427.

Li, Paul, Jen-kuei. 2006. Numerals in Formosan languages. *Oceanic Linguistics* 45.1: 131-152.

Li, Peggy, Barner, David and Huang, Becky H. 2008. Classifiers as Count Syntax: Individuation and Measurement in the Acquisition of Mandarin Chinese. *Language, Learning, and Development* 4.4: 1-42.

Li, Shih-Min, Su-Chu Lin, Chia-Hung Tai and Keh-Jiann Chen. 2006. A Probe into Ambiguities of Determinative-Measure Compounds, *International Journal of Computational Linguistics & Chinese Language Processing* 11.3*:* 245-280.

Li, Wendan. 2000a. Numeral-classifiers as a grounding mechanism in Mandarin Chinese. *Journal of Chinese Linguistics* 28.2*:* 337–368.

Li, Wendan. 2000b. The pragmatic function of numeral-classifiers in Mandarin Chinese. *Journal of Pragmatics* 32: 1113-1133.

Li, Y.-H. Audrey. 1999. Plurality in a classifier language. *Journal of East Asian Linguistics*, 8.1: 75-99.

Li, Audrey Yen-Hui and Shi, Yuzhi. 2000. Hanyu lingci xitong-de jianli yu fushu biaoji "men"-de fazhan (The establishment of the Chinese classifier system and the development of the plurality marker *-men*). *Contemporary Linguistics* 2.1: 27-36.

Liao, Roger, Wei-wen and Wang, Iris, Yuyun. 2011. Multiple-classifier constructions and nominal expressions in Chinese. *Journal East Asian Linguist* 20: 145-168.

Lien, Chinfa andWang, Pengying. 1999. Shape classifiers in Mandarin and Taiwanese--A psycholinguistic perspective. The Biological Basis of Language, ed by Ovid J. L. *Journal of Chinese Linguistics Monograph.* 13:189-221. Project on Linguistic Analysis, University of California at Berkeley.

Lin, Wei and Sin Lee. 2001. L1 development in an L2 environment: The use of Cantonese classifiers and quantifiers by young British-born Chinese in Tyneside. *International Journal of Bilingual Education and Bilingualism* 4.6: 359-82.

Liu, Haiyong. 2008. A case study of the acquisition of Mandarin classifiers. *Language Research* 44.2: 345-360.

Loke, Kit-Ken. 1994. Is *ge* merely a 'general classifier'? *Journal of the Chinese Language Teachers Association* 29: 35-50.

Loke, Kit-Ken. 1996. Norms and realities of Mandarin shape classifiers. *Journal of the Chinese Language Teachers Association* 31: 1-22.

Loke, Kit-Ken. 1994. Is *ge* merely a 'general classifier'? *Journal of the Chinese Language Teachers Association* 29.3: 35-50.

Loke, Kit-Ken. 1997. The grammaticalization and regrammaticalization of Chinese numeral classifier morphemes. *Journal of Chinese Linguistics 25.1*: 1-20.

MacWhinney, Brian and Jared Leinbach. 1991. Implementations are not conceptualizations: Revising the verb learning model. *Cognition* 40: 121-157.

Marcus, Gary F., Steven Pinker, Michael Ullman, Michelle Hollander, T. John Rosen, and Fei Xu. 1992. Overregularization in language acquisition. *Monographs of the Society for Research in Child Development* 57.

Massam, Diane. 2009. On the separation and relatedness of classifiers, number, and individuation in Niuean. *Language and Linguistics* 10.4: 669-699.

Matsumoto, Yo. 1985. Acquisition of Some Japanese Numeral Classifiers: The Search for Convention," *Stanford University Papers and Reports in Child Language Development* 24: 86-89.

McRae, Ken, Virginia R. de Sa, and Mark S. Seidenberg. 1997. On the nature and scope of featural representations of word meaning. *Journal of Experimental Psychology: General* 126: 99-130.

Myers, James. 2000. Rules vs. analogy in Mandarin classifier selection. *Language and Linguistics* 1.2: 187-209.

Naka, Makiko. 1999. The acquisition of Japanese numerical classifications by 2–4-year-old children: The role of caretakers' linguistic inputs. *Japanese Psychological Research* 41.1: 70-78.

Pamela, Downing. 1993. Pragmatic and semantic constraints on numeral quantifier position in Japanese. *Journal of Linguistics* 29: 65-93,

Polio, Charlene. 1994. Non-native speakers use of nominal classifiers in Mandarin Chinese. *Journal of the Chinese Language Teachers Association* 29: 51-66.

Rijkhoff, J. 1990. Explaining word order in the noun phrases. *Linguistics* 28: 5-42.

Rosch, Eleanor. 1973. Natural categories. *Cognitive Psychology* 4: 328-350.

Rosch, Eleanor and C. B. Mervis. 1975. Family resemblances: Studies in the internal structure of categories. *Cognitive Psychology* 7: 573-605.

Rothstein, Susan. 2009. Measuring and counting in Modern Hebrew. *Brill's Annual of Afroasiatic Languages and Linguistics* 1: 106-145.

Rutkowski, Paweł. 2002a. The Syntax of quantifier phrases and the inherent vs. structural case distinction. *Linguistic Research* 7.1: 43-74.

Rutkowski, Paweł. 2002b. Numerals as grammaticalised nouns: a generative approach. *Interlingüística* 13.3: 317-328.

Saalbach, Henrik and Imai, Mutsumi. 2007. The scope of linguistic influence: Does a classifier system alter object concepts? *Journal of Experimental Psychology: General*, 136: 485-501.

Senft, Gunter.1991. Network Models to Describe the Kilivila Classifier System. *Oceanic Linguistics 30(2),* 131-155

Schafer, Edward H. Jr. 1948. Noun classifiers in classical Chinese, *Language* 24: 408-413.

Shi, Yu-Zhi. 1996. Proportion of extensional dimensions: The primary cognitive basis for shape-based classifiers in Chinese. *Journal of the Chinese Language Teachers Association* 31.2: 37-59.

Shi, Yuzhi and Li, Charles Na. 2002. The establishment of the classifier system and the grammaticalization of the morphosyntactic particle de in Chinese. *Language Sciences* 24.1: 1-15.

Soja, Nancy N., Susan Carey, and Elizabeth S. Spelke. 1991. Ontological Categories Guide Young Children's Inductions of Word Meaning: Object Terms and Substance Terms, *Cognition* 38: 179-211.

Srinivasan, Mahesh. 2010. Do classifiers predict differences in cognitive processing? A study of nominal classification in Mandarin Chinese. *Language and Cognition* 2.2: 177-190.

Sun, Chaofen. 1988. The discourse function of numeral classifiers in Mandarin Chinese. *Journal of Chinese Linguistics* 16.2: 298-323.

Takano, Yasukuni. 1984. The lexical nature of quantifiers in Japanese. *Linguistic Analysis* 14: 289-311.

Tai, Chia-hung, Shu-Ling Huang, and Keh-Jiann Chen. 2009. A Semantic Composition Method for Deriving Sense Representations of Determinative-Measure Compounds in E-HowNet. *International Journal of Computational Linguistics and Chinese Language Processing, volume* 14.1: 19-44.

Tai, James Huai and Lianqing Wang. 1990. A semantic study of the classifier *tiao* (條). *Journal of the Chinese Language Teachers Association* 25: 35-56.

Tai, James Huai and Fang-yi Chao. 1994. A semantic study of the classifier *zhang*. *Journal of the Chinese Language Teachers Association* 29.3: 67-78.

Tang, Chih-Chen Jane. 1990. A note on the DP analysis of Chinese noun phrase. *Linguistics* 28: 337-54.

Tang, Chih-Chen Jane. 2004. Two types of classifier languages: a typological study of classification markers in Paiwan noun phrases. *Language and Linguistics* 5.2: 377-407.

Tang, Chih-Chen Jane. 2005. Nouns or classifiers: A non-movement analysis of classifiers in Chinese. *Language and Linguistics* 6.3: 431-72.

Thioux, Marc, Pillon, A., Samson, D., De Partz, M.-P., Noel, M. P., and Seron, Xavier. 1998. The isolation of numerals at the semantic level. *Neurocase* 4: 371-389.

Tien, Yi-Min, Tzeng, Ovid J. L., and Hung, Daisy Lan 2002. Semantic and cognitive basis of Chinese Classifiers: A functional approach. *Language and Linguistics* 3.1: 101-132.

Tse, Shek. Kam., Li, Hui., and Leung, Shing. On. 2007. The acquisition of Cantonese classifiers by preschool children in Hong Kong. *Journal of Child Language* 34: 495-517.

Tzeng, Ovid, Sylvia Chen, and Daisy L. Hung. 1991. The classifier problem in Chinese aphasia. *Brain and Language* 41: 184-202.

Uchida, Nobuko. 1997. How do young children acquire the numerical classifiers? Cross-cultural comparison of Japanese and Chinese. *Ritsumeikan Bungaku* 548: 77-114.

Uchida, Nobuko and Mutusmi Imai. 1999. Heuristics in learning classifiers: The acquisition of the classifier system and its implications for the nature of lexical acquisition. *Japanese Psychological Research* 41.1: 50-69.

Ueda, Yasuki and Haraguchi, Tomoko. 2008. Plurality in Japanese and Chinese. *Nanzan Linguistics: Special Issue 3*, 2: 229-242.

Vinet, Marie-Thérèse and Xiaoyan Liu. 2008. Plurality in Chinese with a restricted class of noun classifier words. *Toronto Working Papers in Linguistics* 28: 357-373.

Watanabe, Akira. 2006. Functional projections of nominals in Japanese: syntax of classifiers. *Natural Languages and Linguistic Theory* 24: 241-306.

Watanabe, Akira. 2010. Notes on nominal ellipsis and the nature of no and classifiers in Japanese. *Journal of East Asian Linguistics* 19: 61-74.

Wiebusch, Thekla. 1995. Quantification and qualification: Two competing functions of numeral classifiers in the light of the radical system of the Chinese script. *Journal of Chinese Linguistics* 23: 1-41.

Wu, Yicheng and Adams Bodomo. 2009. Classifiers ≠ Determiners. *Linguistic Inquiry* 40: 487-503.

Yamamoto, Kasumi and Frank Keil. 2000. The Acquisition of Japanese Numeral Classifiers: Linkage Between Grammatical Forms and Conceptual Categories, *Journal of East Asian Linguistics* 9: 379-409.

Yau, Shunchiu. 1986. There is something... 'How to use a classifier in Chinese in case of lexical breakdown'. *Cahiers de Linguistique Asie Orientale* 15: 59-64.

Yau, Shunchiu. 1988. A cognitive approach to the genesis of nominal classifiers as observed in archaic Chinese. *Journal of Chinese Linguistics* 16.2: 264-277.

Yi, Byeong-uk. 2009. Chinese classifiers and count nouns. *Journal of Cognitive Science* 10: 209-225.

Yo, Matsumoto. 1993. Japanese numeral classifiers: A study of semantic categories and lexical organization. *Linguistics* 3 1:667-713.

Zhang, Hong. 2007. Numeral classifiers in Mandarin Chinese. *Journal of East Asian Linguistics* 16.1: 43-59.

Zhang, Niina-Ning. 2011. The Constituency of Classifier Constructions in Mandarin Chinese. *Taiwan Journal of Linguistics* 9.1: 1-50.

Zhang, Shin and Schmitt, Bernd 1998. Language-dependent classification: The mental representation of classifiers in cognition, memory, and ad evaluations. *Journal of Experimental Psychology: Applied* 4: 375-385.

Zubin, David A. and Mitsuaki Shimojo. 1993. How 'general' are general classifiers? with special reference to *ko* and *tsu* in Japanese. *Proceedings of the Berkeley Linguistics Society* 19: 490-502.

安豐存 2009 從量詞的語法化過程看語言結構的內部調整，《漢語學習》2009年第4期，56-60頁。

安豐存、程工 2011 漢語量詞形態句法屬性研究，《漢語學習》2011年第2期，37-44頁。

安玉青 2010 漢語簡單句中的量詞轄域歧義及其消歧研究，《青島大學師范學院學報》2010年第2期，96-101頁。

巴哈爾古力 1999 淺談漢語量詞的形象色彩，《伊犁師范學院學報》1999年第3期，38-40頁。

巴拉提・吐遜巴克 2010 漢維量詞對比研究，《新疆大學學報(哲學・人文社會科學版)》2010年第2期，145-148頁。

巴特爾拜・歡尼西拜 2005 淺談現代漢語量詞的分類搭配，《伊犁教育學院學報》2005第4期，79-83頁。

白冰 2001 宋元時期，個體量詞的變化和發展，《山西高等學校社會科學學報》2001年第7期，106-109頁。

白美云 2008 日、漢語量詞對比初探，《山西農業大學學報(社會科學版)》2008年第5期，547-550頁。

白石 2004 鼓樓辨「副」「幅」，《咬文嚼字》2004年第10期，14-15頁。

閉思明 1998 橫縣平話量詞記略，《廣西教育學院學報》1998年第S1期，140-143頁。

邊旭 2007 量詞認知功能新探，《文教資料》2007年第28期，26-28頁。

邊旭 2008 量詞定配性的實驗研究，《新西部(下半月)》2008年第9期，120-121頁。

邊旭 2009 針對量詞「個」化問題的實證研究，《語文學刊》2009年第1期，94-96頁。

薄文澤 2003 壯語量詞的語法雙重性，《民族語文2003》2003年第6期，7-12頁。

卜海艷2008 試論詞源分析在對外漢語量詞教學中的作用，《語文知識》2008年第3期，54-56頁。

曹芳宇 2010敦煌文獻中疑似量詞「件」辨析，《南開語言學刊》2010年第1期，119-125、188頁。

曹廣順 1994 說助詞「個」，《古漢語研究》1994年第4期，28-32、48頁。

曹國軍、岳康 2006 析「數+大+NP」結構，《海南廣播電視大學學報》 2006年第1期， 16-17、20頁。

曹津源 1995 中學語文教材中量詞的修辭功能及其鑒賞，《綏化師專學報》1995年第4期，94-98頁。

曹津源 1998 量詞設喻——一種最簡練明快的比喻，《語文知識》1998年第9期，46-47頁。
曹小云 1995 《漢語大詞典》量詞補證，《丹東師專學報》1995年第2期，63-64頁。
常紅、李燕萍 2008 古代突厥語量詞研究，《喀什師范學院學報》2008年第2期，53-57頁。
陳斌 2009 漢語個體量詞的獨特性——從英漢對比角度研究，《宜春學院學報》2009年第1期，161-163、167頁。
陳凡凡、林倫倫 2003 廣東澄海閩方言量詞的語法特點，《汕頭大學學報(人文社會科學版)》2003年第S1期，70-76頁。
陳紱 1998 談漢語陪伴性物量詞的由來及其應用原則，《語言文字應用》1998年第4期，27-32頁。
陳紱 2000 簡析古今漢語的定數量詞，《北京大學學報(哲學社會科學版)》2000年第5期，120-125頁。
陳紱 2002 從「枚」與「個」看漢語泛指性量詞的演變，《語文研究》2002年第1期，33-35頁。
陳紱 2006 簡析含有「量詞語素」的名詞性復合詞，《語言文字應用》2006年第3期，63-68頁。
陳國亭、方紅宇 1995 俄、漢語表達物量和動量意義的形式和手段綜述，《外語學刊》1995第1期，46-53頁。
陳慧、張志 2000 是動量詞短語，還是一種動詞的重疊形式——關于《現代漢語》中「借自動詞」的動量詞問題的探討，《湘潭大學社會科學學報》2000年第S1期，110-113頁。
陳會兵 2003 現代漢語物量詞的再確定，《漢字文化》2003年第4期，43-44頁。
陳計 2001 量詞對7種聯結詞的分配律——計算機自動推理的1個實例，《寧波大學學報(理工版)》2001年第3期，60-63頁。
陳家春、李進 2003 自貢話量詞研究，《自貢師范高等專科學校學報》2003年第2期，24-28頁。
陳潔、呂曉麗、曾自立 2007 漢、英量詞構成之比較，《云夢學刊》2007年第S1期，98-100頁。
陳金豹 1994 量詞或形容詞「多」「余」在數詞后面的位序，《語文知識》1994年第9期，40頁。
陳練軍 2003 《尹灣漢墓簡牘》中的量詞，《周口師范學院學報》2003年第3期，79-81頁。
陳練軍 2004a 居延漢簡中的量詞詞義演變，《淮北煤炭師范學院學報(哲學社會科學版)》2004年第5期，104-107頁。
陳練軍 2004b 居延漢簡中名詞與量詞組合的語義條件，《漳州師范學院學報(哲學社會科學版)》2004年第1期，92-95頁。
陳練軍 2005 居延漢簡量詞的分布特徵，《伊犁師范學院學報》2005年第1期，68-72頁。

陳淑梅 2004 談約量結構X把，《語言研究》2004年第4期，21-25頁。
陳淑梅 2007 鄂東方言量詞重疊與主觀量，《語言研究》2007年第4期，42-46頁。
陳濤 2002 物量詞誤用例，《語文建設》2002年第2期，43頁。
陳偉琳 2002 多胞胎量詞運用芻議，《信陽師范學院學報(哲學社會科學版)》2002年第4期，96-97、109頁。
陳魏俊、譚文旗 2008 尹灣漢簡所見語法現象一則——量詞詞尾化補說，《西南民族大學學報(人文社科版)》2008年第8期，251頁。
陳曉麗 2008 量詞「顆、粒、枚」的認知語義特點，《忻州師范學院學報》2008年第1期，41-43頁。
陳小明 2004 粵語量詞的表量方式，《廣西師范學院學報(哲學社會科學版)》2004年第1期，135-138頁。
陳小明 2008 形體單位、類別詞、個體量詞——漢語個體量詞性質的再認識，《廣西師范學院學報(哲學社會科學版)》2008年第1期， 93-98頁。
陳秀然 2007 漢語量詞修飾形容詞現象探因，《重慶三峽學院學報》 2007年第1期，88-91頁。
陳一睿 2009 體驗哲學:英語量詞性隱喻闡釋，《樂山師范學院學報》2009年第2期，80-81、85頁。
陳穎 2000 關于數量詞修飾名詞帶「的」情況的考察，《上饒師范學院學報》2000年第1期，85-87頁。
陳英 2010 說量詞性比擬，《新疆大學學報(哲學・人文社會科學版)》2010年第2期，137-140頁。
陳勇 2007 論「個」的幾種語法化形式，《語文學刊》2007年第10期，121-123頁。
陳玉冬 1998 隋唐五代量詞的語義特徵，《古漢語研究》1998年第2期，20-24頁。
陳玉潔 2007 量名結構與量詞的定語標記功能，《中國語文》 2007年第6期，516-530、576頁。
陳玉宇 1994 量詞的近義性與差異性，《新疆教育學院學報》1994年第3期，50-53頁。
陳玉宇 1999 量詞的近義性與差異性，《新疆師范大學學報(哲學社會科學版)》1999年第2期，40-43頁。
陳躍 2007 從量詞結構看《紅樓夢》處于近現代漢語的臨界點，《嘉應學院學報》2007年第4期，68-71頁。
陳云香 2009 「個」的歷時演變描寫，《赤峰學院學報(漢文哲學社會科學版)》2009年第11期，105-107頁。
陳澤平、秋谷裕幸 2008 福州話的通用量詞「隻」與「個」，《方言》2008年第4期，312-317頁。
陳照君 2010 現代漢語量詞的語義特徵分析，《華章》2010年第21期，30-31頁。
程國珍 2004 小議「抹」的量詞用法，《辭書研究》2004年第5期，134-135頁。
程國珍 2007 變異量詞的語義特徵分析，《現代語文(語言研究版)》2007年第11期，41-42頁。
程國珍 2010a 現代漢語變異量詞的來源分析，《語文學刊》2010年第16期，26-27頁。

程國珍 2010b 現代漢語量詞遷嫁的修辭方法分析，《語文學刊》2010年第18期，17-18頁。
程南昌、楊柳 2010 現代漢語量詞的類屬問題研究綜述，《現代語文(語言研究版)》2010年第2期，15-16頁。
盛銀花 2005 安陸方言物量詞比較研究，《中南民族大學學報(人文社會科學版)》2005年第1期，167-170頁。
褚福俠 2009b 元曲「量詞+兒」用法考，《合肥師范學院學報》 2009年第5期，32-34、101頁。
褚福俠 2009c 從名量式復音詞看量詞的詞尾化進程，《語文學刊》2009年第6期，94-95頁。
崔爾勝 2009 敦煌變文中量詞「棵」成因分析，《語文學刊》2009年第10期，161-162頁。
崔健 2010 量詞的功能差異和詞類地位，《漢語學習》2010年第6期， 69-81頁。
崔永娟 2007 萬寧方言中的量詞「朋」，《海南師范大學學報(社會科學版)》2007年第5期，151-152頁。
崔元萍 2008 韓語量詞教法探析及翻譯技巧，《繼續教育研究》2008年第12期，133-134頁。
戴慶厦、蔣穎 2005 萌芽期量詞的類型學特徵，收錄於李錦芳主編《漢藏語系量詞研究》，北京：中央民族大學出版社，90-103頁。
戴慶厦、蔣穎 2005 論藏緬語的反響型名量詞，《中央民族大學學報(哲學社會科學版)》2005年第2期，124-129頁。
鄧幫云 2004a 「盤」量詞用法探究，《樂山師范學院學報》2004年第7期，74-76頁。
鄧幫云 2004b 元代個體量詞量月時的形象色彩與修辭功能，《武漢市經濟管理干部學院學報》2004年第S1期，144-145頁。
鄧幫云 2006 量詞「盤」在四川方言中的一個較特殊用法，《西華大學學報(哲學社會科學版)》2006年第4期，50-51、69頁。
鄧幫云 2009a 元代動量詞概說，《內江師范學院學報》2009年第1期，68-72頁。
鄧幫云 2009b 元代量詞語法特徵概說，《樂山師范學院學報》2009年第1期，79-82頁。
鄧建平、耿選珍、鄧顯蓉 2002 淺談英、漢單位詞的使用，《西昌農業高等專科學校學報》2002年第4期，138-140頁。
鄧開初 2008 長沙話中缺乏語義分類功能的量詞「只」，《船山學刊》2008年第3期，60-61頁。
鄧麗娟 2003 說說移就、量詞移用的組成，《昭通師范高等專科學校學報》2003年第1期，46-49頁。
鄧艷青 2006 量詞性隱喻，《江西教育學院學報》2006年第3期，113-115頁。
鄧佑玲 2001 土家語名量詞研究，《中南民族學院學報(人文社會科學版)》2001年第5期，128-131頁。
鄧玉榮 1998 賀縣客家話量詞的衍音重疊，《廣西梧州師范高等專科學校學報》1998年第4期，34-35頁。

鄧增松 2002 「副」、「服」辨析，《新聞導刊》2002年第6期，52頁。
刁晏斌 2005 現代漢語量詞詞義的發展變化，《忻州師范學院學報》2005第4期，1-5、31頁。
刁晏斌 2006a 當代漢語量詞使用中的復舊與趨新現象，《遼東學院學報(社會科學版)》2006年第1期，62-67頁。
刁晏斌 2006b 現代漢語量詞的顯現與潛藏，《遼東學院學報(社會科學版)》2006年第3期，63-68頁。
刁晏斌 2008 復合量詞及量詞詞組簡論，《術語標準化與信息技術》2008年第3期，32-34頁。
刁晏斌 2009 當代漢語量詞的簡化和繁化，《渭南師范學院學報》2009年第1期，20-22頁。
丁國旗 2001 廣義量詞及其單調性，《山東外語教學》2001第3期，21-24頁。
丁加勇 2005 現代漢語數名結構的篇章功能，《語言研究》2005年第1期，19-25頁。
丁凌云 1999 兒童語言中的量詞，《安徽師范大學學報(人文社會科學版)》1999年第1期，112-117頁。
杜道流 2007 計數和計量——兼論「名量詞」「」的功能類別，《語言研究》2007年第1期，73-76頁。
杜道流 2008 量詞「點兒」和「些」的認知特徵，《淮北煤炭師范學院學報(哲學社會科學版)》2008年第1期，44-46頁。
杜慧穎 2000 漢語名詞短語結構的NumP和DP分析，《福建外語》2000年第4期，18-24頁。
杜艷 2009a 以語義認知脈絡為基礎的對外漢語量詞教學方法，《現代語文(語言研究版)》2009年第8期，119-120頁。
范崇峰 2007 談敦煌卷子中的量詞「掘」，《中國語文》2007第2期，187-188頁。
范崇峰 2009 敦煌醫方量詞兩則，《中國語文》2009年第5期，477-478頁。
范崇高 2003 名量詞「人」示例，《中國語文》2003年第3期，281頁。
范利、聶春梅 2001 從認知語言學看名詞臨時作量詞的語義演變規律，《湖南第一師范學報》2001年第1期，27-31頁。
樊守媚，陳偉琳 2010 指稱人的量詞「個、名、位」的句法、語義新辨，《現代語文(語言研究版)》2010年第3期，34-36頁。
范偉 2001 現代漢語個體量詞語法特點的認知解釋，《南京師范大學文學院學報》2001年第2期，74-78頁。
樊中元 2006 語體對名詞和量詞組合的制約作用，《中南大學學報(社會科學版)》2006年第5期，629-633頁。
樊中元 2007a 略談泛用量詞「個」的作用，《語文教學與研究》2007年第16期，60-61頁。
樊中元 2007b 論同一名詞對不同表形義量詞的選擇，《漢語學報》 2007年第4期，26-33、95頁。
樊中元 2009 論配同關系量詞「顆」和「粒」，《廣西師范大學學報(哲學社會科學版)》2009年第6期，84-87頁。

方芳 2006 基于語料庫的量名短語識別初探，《樂山師范學院學報》2006年第2期，57-59頁。
方琴 2005 《史記》量詞用法探析，《嘉應學院學報》2005年第4期，110-114頁。
方琴 2006臨川方言中的幾個特殊量詞，《黑龍江教育學院學報》2005年第1期，75-76頁。
方清明 2005 浮梁話與普通話量詞比較研究，《景德鎮高專學報》2005年第1期，90-92頁。
方寅 2009 漢語動量詞研究述評，《常熟理工學院學報》2009年第7期，101-106頁。
方寅、張成福 2007動詞與動量詞搭配規律的認知分析，《徐州師范大學學報(哲學社會科學版)》2007年第2期，60-64頁。
馮冬梅2009 種類量詞的范圍確定、語義特徵和研究展望，《柳州職業技術學院學報》2009年第1期，119-121頁。
馮青2010《齊民要術》個體量詞使用特點，《昭通師范高等專科學校學報》2010第6期，37-40頁。
馮文敏 1996 數量詞在詩詞中動用舉隅，《語文知識》1996年第11期，15-17頁。
傅海峰 2009 漢語集合量詞的虛與實，《漢字文化》2009年第3期，26-28頁。
傅昆 2000 聽力障礙學生掌握量詞特點的調查，《現代特殊教育》2000年第7期，15-16頁。
傅力 1996 「雙」、「兩」釋異，《中國語文》1996第5期，382-385頁。
伏學鳳 2005 《漢語水平詞匯與漢字等級大綱》名量詞系源研究，《語言文字應用》2005年第S1期，15-17頁。
伏學鳳、陳紱2005漢語作為第二語言教學中的量詞研究，《語言文字應用》2005年第2期，141頁。
伏學鳳 2007 初、中級日韓留學生漢語量詞運用偏誤分析，《語言文字應用》2007年第S1期， 29-32頁。
甘甲才 2010 關于漢語量詞的思考，《廣東廣播電視大學學報》 2010年第4期，66-68頁。
甘智林2005帶賓「V+一下_1」、「V+一下_2」格式的語序問題，《長沙鐵道學院學報(社會科學版)》2005年第1期，176-178頁。
高純 2009c 《兒女英雄傳》，與《紅樓夢》中特色數量詞的比較，《現代語文(語言研究版)》2009年第5期，27-30頁。
高道軍 2008 淺論英漢語量詞之差異，《滁州學院學報》2008年第4期，96-97。
高佳 2006 《元曲選》個體量詞研究，《求索》2006年第6期，205-206、66頁。
高佳 2008 兩漢時期的服裝量詞考據，《求索》2008第2期，227-229頁。
高佳 2009a 《元曲選》動量詞系統考察，《內江師范學院學報》2009年第3期，46-49頁。
高佳 2009b 明清時期的上裝量詞，《青年文學家》2009年第15期，38-40頁。
高山、譚紅 2007 論「吃了一+『量詞』+骨頭」結構中動詞與后接名詞的語義關系，《廣西大學學報(哲學社會科學版)》2007年第S1期，131-132頁。

高亞男 2008 議「X_1+一+量詞+X_2+一+量詞」結構，《語文學刊》2008年第S1期，43-45頁。
宮旭 2010 從名量詞看漢民族的認知心理，《吉林省教育學院學報》2010年第7期，150-151頁。
關彥慶 2006 數詞「半」與物量詞的小類，《通化師范學院學報》2006年第1期，106-109頁。
關彥慶、盧艷艷 2007 試論數詞「半」的句法結構類型，《通化師范學院學報》2007年第9期，103-106頁。
關彥慶、于洋、 宋蓓蓓2008 試論「半」的詞性及「一半」蘊含的認知理念，《通化師范學院學報》2008年第6期，36-38頁。
關英偉 1994 也談「復合量詞」這個術語，《漢語學習》1994年第6期，58頁。
關英偉 1995 復合量詞家族的新成員——和式復合量詞，《贛南師范學院學報》1995年第4期， 29-32頁。
郭鳳梅 2003 「群」字英譯，《遼寧商務職業學院學報》2003第3期，82-83頁。
郭華 2007b 也談「動詞+數量結構」，《宜賓學院學報》2007第4期，87-88頁。
郭慧 2007 轉類量詞的認知考察——從象似性和激活看名詞活用為量詞，《黑龍江教育學院學報》2007年第12期，98-99頁。
郭輝 2007 皖北濉溪方言的「子」尾詞，《方言》2007年第3期，216-220頁。
郭繼懋 1999 再談量詞重疊形式的語法意義，《漢語學習》1999年第4期，7-10頁。
郭建華 2005 量詞「點」和「些」用法，《河北理工學院學報(社會科學版)》2005年第2期，162-164頁。
郭攀 2002 「數(量)名」多重組合的「分」、「合」表達及其演變，《語言研究》2002年第2期，58-62頁。
郭培錄 2009 量詞「雙」和「對」對名詞的語義選擇，《安徽文學(下半月)》2009年第1期，288-289頁。
郭琴 2007a 也談表行為、動作次數的動量詞「把」，《現代語文(語言研究版)》2007年第1期，53-54頁。
郭瑞峰 2008 從隱喻的認知角度看臨時名量詞的修辭效果，《內蒙古師范大學學報(哲學社會科學版)》2008年第S2期，141-143頁。
郭三科 2005 「時量+N(P)」的語義特徵、句法結構、語用價值，《商洛師范專科學校學報》2005年第3期，37-40頁。
郭萬青 2009 《國語》中的名量詞，《唐山師范學院學報》2009年第1期，4-6、136頁。
郭先珍、王玲玲 1994 量詞的模糊性，《漢語學習》1994年第3期，37-39頁。
郭先珍 1996 談談物量詞對前搭配數詞的語義選擇，《中國人民大學學報》1996年第3期，98-102、127頁。
郭曉沛、蔡文豐、于為 2007 淺談對外漢語量詞教學的現狀，《長春教育學院學報》2007年第3期，55-57頁。
郭著章 1999a 要留心動物的群體量詞的漢譯英，《上海科技翻譯》1999年第1期，29-31頁。

郭著章 1999b 動物的群體量詞，《外語與外語教學》1999年第9期，18-19頁。
耿言海、李鳳啟 2007 量詞的色彩義和色彩義變異，《現代語文(語言研究版)》2007年第12期，53-54頁。
郝康 2010 運用配價理論分化物量詞歧義句-「動詞兼不定量形容詞(的)+一+物量詞+N」句式的分化，《文學界(理論版)》2010年第9期，145-146頁。
何佳 2011 天津手語的工具動量詞研究，《當代語言學》2011年第2期，144-152、190頁。
何杰、何平 1996 現代漢語量詞的轉義現象，《南開學報(哲學社會科學版)》1996年第5期，76-80頁。
何孟謙、鄧時忠 2006 談談現代漢語中借自名詞的量詞，《科教文匯(下半月)》2006年第7期，158-159頁。
何明航 2008 現代漢語近義名量詞的認知考察，《現代語文(語言研究版)》2008年第12期，75-76頁。
何宏華 2002 轄域釋義與漢語標記性量詞，《清華大學學報(哲學社會科學版)》2002年第S1期，1-7頁。
何宏華、陳會軍 2003 語鏈結構與漢語量詞轄域，《當代語言學》2003年第3期，222-230、285-286頁。
何自強 2000 離散數學中與量詞有關的推理規則，《北京航空航天大學學報》2000年第4期，432-434頁。
黑維強 2009 陝北綏德方言「個」的讀音和用法，《方言》2009年第3期，283-289頁。
洪嬋 2009 從「我給你一(把)刀」看量詞缺省效應，《四川教育學院學報2009》2009年第9期，38-41頁。
洪嬋 2010 漢英感情域隱喻性量詞的比較分析，《現代語文(語言研究版)》2010年第6期，97-100頁。
胡光斌 2007 遵義方言量詞的重疊，《遵義師范學院學報》2007年第1期，28-33頁。
胡光斌 2008 遵義方言的助詞「把」《 西華大學學報(哲學社會科學版)》 2008年第4期，63-67頁。
胡海娟、徐雁 2009 上古衡量詞文化義探析——上古漢語中度量衡詞匯文化義初探(三)，《語文學刊》2009年第22期，22-23頁。
胡繼明 2004 《吐魯番出土文書》中的量詞，《西南民族大學學報(人文社科版)》2004年第12期，424-428頁。
胡靜 2001 從親屬語言的比較看老撾語量詞的特點，《解放軍外國語學院學報》2001年第4期，57-60頁。
胡波 2008 上古三種數學文獻中的量詞，《延安大學學報(社會科學版)》2008年第3期，102-107頁。
胡清國 2006 「一量(名)」否定格式對量詞的選擇與限制，《漢語學報》2006年第3期，30-34、95-96頁。
胡素華、沙志軍 2005 涼山彝語類別量詞的特點，《中央民族大學學報(哲學社會科學版)》2005年第4期，120-124頁。

華澄 2009 形量詞的語義分析及其與形容詞的選擇關系，《語文學刊》2009年第19期，62-63、73頁。
華澄 2009 現代漢語量詞的語義語法分類，《文教資料》2009年第24期，47-48頁。
華玉明 1994 漢語重疊系列之五：試論量詞重疊，《邵陽學院學報(社會科學版)》1994年第3期，43-47頁。
黃成龍 2005 羌語的名量詞，《民族語文》2005年第5期，16-27頁。
黃芳 2005 試析量詞「塊」的法語譯法，《文史博覽》2005年第12期，31-32頁。
黃居仁 1999 〈詞彙語意和句式語意的互動關係〉，殷允美等編《中國境內語言暨語言學》第五輯，413-438頁。台北：中央研究院語言學研究所籌備處。
黃潔 1998 漢語個體量詞與民族具象思維關系論略，《西南師范大學學報(哲學社會科學版)》1998年第6期，94-96頁。
黃潔 2006 安徽蕪湖方言中「個」的特殊用法，《現代語文(語言研究版)》2006年第12期，83-85頁。
黃進 2003 兒童語言中個體量詞「個」的運用及其他，《南京廣播電視大學學報》2003年第3期，51-53頁。
黃金城 2003 省略「一」和省略量詞，《青海教育》2003年第11期，22頁。
黃寧 2009 淺論漢語個體量詞搭配的模糊性——以「條」和「根」為例，《語文學刊》2009年第2期，89、98頁。
黃佩文 2001 句式「好+數量+V」，《漢語學習》2001年第6期，49頁。
黃佩文 2002 切忌量詞「位」的濫用，《漢語學習》2002年第2期，50頁。
黃拾全 2010 安徽岳西贛語「AXA」式量詞重疊及其主觀性，《南昌大學學報(人文社會科學版)》2010年第5期，92-95頁。
吉仕梅 1996 《睡虎地秦墓竹簡》量詞考察，《樂山師范學院學報》1996年第3期，54-59頁。
吉仕梅 2004 漢代簡帛量詞新論，《四川大學學報(哲學社會科學版)》2004年第4期，74-79頁。
季樹良、馬士平 2005 量詞的隱性功能，《語文建設》2005年第1期，49-46頁。
季艷 2008 安慶方言「把」字的用法探析，《常熟理工學院學報》2008年第3期，103-107頁。
夏迪婭·伊布拉音 2006 維吾爾族學生學習漢語量詞偏誤分析，《新疆大學學報(哲學人文社會科學版)》2006年第3期，143-145頁。
江合友 2003 論汪元量詞的修辭和意象運用特色，《貴州社會科學》2003年第2期，78-82頁。
江合友 2004 凄涼哀怨的遺民心聲——論汪元量詞的內容分類與藝術風格，《上饒師范學院學報》2004年第1期，77-80、83頁。
蔣軍鳳 2005 湘南石期土話的量詞重疊式「量+噠+量」，《株洲師范高等專科學校學報》2005年第4期，89-90頁。
江明鏡 2006 《論語》中的數詞與量詞，《昌吉學院學報》2006年第1期，43-45頁。
蔣倩 2008 漢語中的量詞及其在英語中的表達，《現代語文(語言研究版)》2008年第9期，100-102頁。

蔣雪挺 2004 漢英表量差異中的文化因素，《上海師范大學學報(哲學社會科學版)》2004年第3期，122-126頁。
蔣穎 2005 漢語名量詞虛化的三種機制，《云南師范大學學報(對外漢語教學與研究版)》2005年第1期，39-43頁。
蔣穎 2005 論甲骨文、金文的反響型量詞－兼與藏緬語比較，收錄於李錦芳主編《漢藏語系量詞研究》，北京：中央民族大學出版社：409-425。
蔣穎 2007 漢藏語名量詞起源的類型學分析，《中央民族大學學報(哲學社會科學版)》2007年第2期，94-100頁。
蔣穎 2008 普米語個體量詞及其類型學分析，《民族語文》2008年第5期，35-43頁。
蔣運承、唐素勤、王駒、周生明 2009 帶傳遞關系和存在量詞的描述邏輯MSC推理，《計算機研究與發展》2009年第6期，979-987頁。
蔣宗霞 2000 現代漢語量詞的分類及其發展趨勢，《廣西民族學院學報(哲學社會科學版)》2000年第5期，113-116頁。
蔣宗霞 2006 動量詞的語義分類及組合關系，《阜陽師范學院學報(社會科學版)》2006年第3期，50-52頁。
蔣宗霞、張德歲 2006 漢語量詞研究的歷史回顧及未來研究的新取向，《淮南師范學院學報》2006年第3期，74-76頁。
金大煥 1998 論漢韓個體量詞之異同，《河南師范大學學報(哲學社會科學版)》1998年第4期，7-13頁。
金福芬、陳國華 2002 漢語量詞的語法化，《清華大學學報(哲學社會科學版)》2002年第S1期，8-14頁。
金桂桃 2002 《清平山堂話本》中的個體量詞，《嘉應大學學報》2001年第2期，80-82頁。
金桂桃 2006 唐至清的量詞「件」，《長江學術》2006第1期，158-162頁。
金桂桃 2007a 動量詞「把」的產生、發展及相關問題，《湖北教育學院學報》2007年第7期，20-22頁。
金桂桃 2007b 漢語動量詞「回」的短時量用法分析，《武漢理工大學學報(社會科學版)》2007年第3期，391-394頁。
金欣欣、金莎莎 2003 漢英個體量詞性質比較，《淮南師范學院學報》2003年第6期，86-90頁。
金穎 2006 試論動量詞「過」的產生、發展及其相關問題，《古漢語研究》2006年第1期，74-78頁。
康忠德 2008 壯漢語量詞對比分析，《湖南科技學院學報》2008年第10期，199-201頁。
匡榮婷 2009 關于漢語「數+量+名」結構來源的思考，《現代語文(語言研究版)》2009年第8期，40-42頁。
李愛民 2001 《金瓶梅詞話》專用動量詞研究，《山東教育學院學報》2001年第2期，42-43、55頁。
李燦 2007 臨時量詞短語的隱喻認知分析，《湖南科技學院學報》2007年第1期，122-124頁。
李凡、胡和平 1995 關于模糊語言量詞的處理，《華中理工大學學報》1995年第S2期，10-14頁。

李芳 2005 歌詞中的量詞誤用六例，《中國科技信息》2005年第3期，162頁。
李豐娟、張顯成 2011 吳簡量詞研究，《古漢語研究》2011年第1期，52-57、96頁。
李貴榮 2009 語義及語用視角下的英語量詞，《忻州師范學院學報》2009年第6期，118-120頁。
李光杰 2007 從「一A一A」和「一A又一A」看漢語的定位，《佳木斯大學社會科學學報》2007年第4期，60-61頁。
李桂榮 2000 怎樣區分物量詞和動量詞，《教育實踐與研究》2000年第4期，49頁。
李航 2009 淺析龍巖方言量詞「頭」，《青年文學家》2009年第16期，69-70頁。
李洪義 2001 量詞「只」「支」「枝」的用法，《河北教育》2001年第6期，31頁。
李計偉 2006 量詞「副」的義項分立與對外漢語教學，《語言教學與研究》2006年第6期，72-77頁。
李計偉 2007 量詞「項」的來源及語義特徵與對外漢語教學，《云南師范大學學報(對外漢語教學與研究版)》2009年第6期，38-43頁。
李計偉 2009 量詞「窠」的產生、發展與量詞「」棵「」的出現， 《語言科學》2009年第4期，431-439頁。
李計偉 2010 論量詞「根」的形成與其認知語義的多向發展，《語文研究》2010年第3期，34-38頁。
李佳樑 2007 《海上花列傳》中句末「個」考察，《社會科學家》2007年第S2期，321-322頁。
李建平 2003a 唐五代動量詞初探，《泰山學院學報》2003年第4期，89-93頁。
李建平 2003b 唐五代動量詞初探，《勝利油田師范專科學校學報》2003年第4期，5-7、20頁。
李建平 2004 《漢語大詞典》量詞初始例試補，《語文學刊》2004年第8期，144-145頁。
李建平 2005a 百年來古漢語量詞研究述評，《天水師范學院學報》2005第3期，71-75頁。
李建平 2005b 從先秦簡牘看《漢語大字典》量詞釋義的闕失，《德州學院學報》2005年第5期，69-72頁。
李建平 2005c 從先秦簡牘看《漢語大詞典》量詞釋義的闕失，《廣西社會科學》2005年第10期，144-146頁。
李建平 2010 先秦兩漢魏晉簡帛文獻中的新興量詞，《寧夏大學學報(人文社會科學版)》2010第6期，21-26頁。
李建平、張顯成 2009 先秦兩漢魏晉簡帛量詞析論，《中華文化論壇》2009年第4期，69-75頁。
李建平、張顯成 2009 泛指性量詞「枚/個」的興替及其動因——以出土文獻為新材料，《古漢語研究》2009年第4期，64-72頁。
李建業 2005a 《論語》中的數詞，《語文知識》2005年第10期，13-14頁。
李建業 2005b 談《論語》中的數詞，《語文學刊》2005年第10期，69-70頁。
李建業 2007 《論語》中的數詞和量詞，《語文學刊》2007年第12期，112-113頁。
李潔 2006a 《漢藏語系量詞研究》出版，《語言研究》2006年第2期，68頁。
李潔 2006b 《漢藏語系量詞研究》出版，《語言科學》2006年第3期，107頁。

李潔 2007 《漢藏語系量詞研究》出版，《漢語學習》2007年第1期，36頁。
李瑾 2010 閩南語量詞與日語助數詞的異同比較，《漳州師范學院學報(哲學社會科學版)》2010年第2期，93-98頁。
李錦芳、李霞2010居都佧佬語量詞的基本語法特徵和句法功能，《語言研究》2010年第2期，116-121頁。
黎俊堅 2002 陸川客家話的量詞，《廣西教育學院學報》2002年第2期，122-124頁。
李康澄 2010 湖南綏寧方言的量詞重疊式及歷史層次，《河池學院學報》2010年第3期，59-61、91頁。
李科鳳 2005 重慶方言的「打」，《宜賓學院學報》2005年第9期，98-100、103頁。
李力 2002 談談漢語量詞的文化意義，《長春大學學報》2002年第3期，48-50頁。
李亮金 2005 廣州話形量詞探析，《廣州大學學報(社會科學版)》2005年第3期，41-44頁。
李美妍 2009a 「V+個+N」結構的句法分析，《現代語文(語言研究版)》2009年第10期，43-45頁。
李美妍 2009b 「V+個+N」結構研究，《現代語文(語言研究版)》2009年第1期，28-31頁。
李敏、樂芳 2003 漢語量詞的形象色彩，《天津社會科學》2003年第4期，115-117頁。
李敏 2002 數量短語與助詞「的」連用的認知分析，《暨南大學華文學院學報》2002年第3期，33-41、49頁。
李明潔 2000 「一條考官」與「一匹狼」，《語文建設》2000年第7期，37頁。
李訥、石毓智 1998 句子中心動詞及其賓語之后謂詞性成分的的變遷與量詞語法化的動因，《語言研究》1998年第1期，40-54頁。
李萍芝 2010 說「個」，《清遠職業技術學院學報》2010年第2期，114-117頁。
李波、崔永娟 2008 海南萬寧方言的三個量詞，《方言》2008年第1期，64頁。
李清 2000 對外漢語教學中漢語量詞的教學及其文化意蘊，《楚雄師專學報》2000年第4期，36-38頁。
李若暉 2000 殷代量詞初探，《古漢語研究》2000年第2期，79-84頁。
李蕊蕊 2010 談漢語量詞教學中的文化因素——以量詞「道」為例，《西安社會科學》2010年第4期，100、111頁。
李莎莉 2005 《洛陽伽藍記》名量詞研究，《赤峰學院學報(漢文哲學社會科學版)》2005第5期，53-54頁。
李少丹 2002 「位」的用法再探討，《修辭學習》2002年第5期，43-42頁。
李淑娟 2003 「一身冷汗」類短語的再探析，《南京航空航天大學學報(社會科學版)》2003年第2期，39-41頁。
李文浩 2010 量詞重疊與構式的互動，《世界漢語教學》2010年第3期，354-362頁。
李文燾 2007 對舉式「方位詞+一+量/動」的多角度考察，《華中師范大學研究生學報》2007年第2期，57-60頁。
李遐 2008 新疆少數民族學生漢語名量詞使用中的認知特點分析，《西北民族大學學報(哲學社會科學版)》2008年第1期，152-156頁。
李先銀 2002a 借用名量詞的語義分析，《信陽師范學院學報(哲學社會科學版)》2002年第2期，56-58、74頁。

李先銀 2002b 漢語個體量詞的產生及其原因探討，《保定師范專科學校學報》2002年第1期，64-67頁。
李湘 2008 「V+-量N」結構對量詞的選擇與限制，《保山師專學報》2008年第4期， 63-65頁。
李曉光 2002 事件量化中的全稱量詞，《外語學刊》2002年第3期，12-16、112頁。
李小平 2006 《齊民要術》中的量詞及其特點，《廣西社會科學》2006年第9期，153-156頁。
李小平 2009 計時量詞「祀、年、歲、載」歷時演變小考，《長春師范學院學報(人文社會科學版)》2009年第9期，74-77頁。
李曉蓉 1995 淺議動量短語的前置現象，《漢語學習》1995年第2期，37-40頁。
李秀 2004 外形特徵類量詞的語義辨析及發展趨勢，《內蒙古師范大學學報(哲學社會科學版)》2004年第1期，83-87頁。
李玄玉 2002關于人體器官的量詞，《阜陽師范學院學報(社科版)》2002年第6期，4-6頁。
李薛妃 2009《大唐三藏取經詩話》量詞系統考察，《安徽文學(下半月)》2009年第5期，295-296頁。
李薛妃 2009《朱子語類》中的量詞「等」，《內蒙古農業大學學報(社會科學版)》2009年第3期，384-385頁。
李亞紅、胡文東、文治洪、徐志鵬 2004，七級語義量詞賦值差值分析比較，《中國行為醫學科學》2004年第6期，102-104頁。
李亞紅、胡文東，文治洪 2005 兩種類型五級語義量詞的賦值差值比較，《第四軍醫大學學報》2005年第4期，382-384頁。
李亞紅、胡文東，徐志鵬 2005 多級語義量詞對心理測量適合度的調查分析，《心理科學》2005年第1期，175-177頁。
李亞麗 2005 漢語第二語言教學中量詞教法探微，《文山師范高等專科學校學報》2005年第2期，182-184頁。
李艷惠、石毓智 2000 漢語量詞系統的建立與復數標記「們」的發展，《當代語言學》2000年第1期，27-36、61-62頁。
李翼 2009 從范疇化過程看量詞「雙」對名詞性成分的選擇，《語文學刊》2009年第11期，85-88頁。
李瑩 2007 漢語名量詞的范疇化，《吉林省教育學院學報》2007年第6期，82-84頁。
李瑩 2008 漢語個體量詞產生的機制與動因，《湖北廣播電視大學學報》2008年第2期，101-102頁。
李瑩 2009 量詞「個」的非范疇化，《江漢大學學報(人文科學版)》2009年第6期，84-87頁。
李宇明 1998 「一量VP」的語法、語義特點，《語言教學與研究》1998年第3期，102-113頁。
李宇明 2000 拷貝型量詞及其在漢藏語系量詞發展中的地位，《中國語文》2000年第1期，27-34、93頁。
李元芝 2007 個體量詞「個」「位」「名」「員」的語義特徵比較，《語文學刊》2007年第16期，116-118頁。

李月炯 2007 量詞的修辭功能分析，《南方論刊》2007年第2期，93-94頁。
李宗江 2004 語法化的逆過程:漢語量詞的實義化，《古漢語研究》2004年第4期，62-67頁。
梁世紅 2007 定位的物量短語，《佳木斯大學社會科學學報》2007年第1期，79-81頁。
梁世紅、魏福軍 2001 數詞、量詞附屬意義中的文化心理內涵，《佳木斯大學社會科學學報》2001年第1期，41-42頁。
梁漢平 2009 漢語量詞的英譯，《遼寧工程技術大學學報(社會科學版)》2009年第6期，645-647頁。
梁曉玲 2010 黑龍江方言的量詞，《方言》2010年第3期，273-2786頁。
林華東 1999 安溪話物量詞舉要，《方言》1999年第1期，72-75頁。
林麗君 2009 論《長生殿》中量詞的修辭功能與表達效果，《山東省青年管理干部學院學報》2009年第4期，133-136頁。
林是非 2006 淺析《永樂大典戲文三種校注》動量詞，《現代語文(語言研究版)》2006年第10期，65-66頁。
劉愛玲 2010 黑龍江站話量詞初探，《現代語文(語言研究版)》2010年第11期，99-100頁。
劉寶順 1996 談談借用量詞的修辭作用，《新疆職業大學學報》1996年第4期，57-60頁。
劉晨紅 2007a 名詞借為臨時物量詞的語義認知基礎，《寧夏師范學院學報》2007年第5期， 47-51頁。
劉晨紅 2007b 器官名詞作臨時名量詞的認知分析，《修辭學習》2007年第3期，74-77頁。
劉晨紅 2008 名詞作臨時物量詞的認知機制，《西北第二民族學院學報(哲學社會科學版)》2008年第4期，134-136頁。
劉晨紅 2010 臨時名量詞與詞語語義音節的關系，《語文學刊》2010年第21期， 52-53頁。
劉春卉 2001 漢語的音步特點與賓位「數量名」結構中數「一」的隱現，《齊齊哈爾大學學報(哲學社會科學版)》2001年第6期，106-108頁。
劉芳 2009 量詞「顆」與「粒」的認知語義分析，《語文知識》2009年第2期，54-58頁。
劉芳池、何麗敏 2010 《長沙走馬樓三國吳簡・竹簡〔壹〕》中的數量詞，《大眾文藝》2010年第15期，126-129頁。
劉海燕 2009a 漢語量詞重疊能力不平衡性的動因與機制，《時代文學(下半月)》2009年第10期，98-101頁。
劉海燕 2009b 漢語量詞重疊能力不平衡性現象考察，《重慶工學院學報(社會科學版)》2009年第7期，129-132、154頁。
柳惠 1998 淺談漢語量詞的形象色彩特徵，《伊犁師范學院學報》1998年第3期，37-39頁。
劉杰海 2009 中心語驅動短語結構語法對英語量詞轄域歧義的解釋，《語文學刊》2009年第7期，6-9頁。
劉茂艷、陳慶良 1999 對3-4歲幼兒量詞掌握情況的實驗研究，《黔西南民族師范高等專科學校學報》1999年第4期，33-35、52頁。
劉茂艷、陳慶良 2000 對3-4歲幼兒量詞掌握情況的實驗研究，《黔東南民族師專學報》2000年第2期，57-59頁。

劉梅蓮 1995 淺談現代漢語中量詞的表達效果，《青海民族學院學報(社會科學版)》1995年第4期，105-107頁。
劉群 2010 襄樊方言的特殊量詞研究，《襄樊學院學報》2010年第12期，64-67頁。
劉淑芬 2009 從三個平面角度析漢語量詞特點及其特殊用法，《湛江師范學院學報》2009年第1期，113-115頁。
劉順、劉雪芹 2010 漢語名詞和量詞組合的認知研究，《南京師范大學文學院學報》2010年第2期，182-188頁。
劉偉 2002 廣義量詞理論中的單調性研究，《外語學刊》2002第1期，51-56頁。
劉文禮 1994 關于量詞的兩個問題，《內蒙古電大學刊》1994年第3期，57-58頁。
劉文正 2006 淺談漢語陪伴型名量詞的起源，《皖西學院學報》2006年第1期，111-115頁。
劉文正 2007 《朱子語類》附加式雙音量詞及發展，《徐州教育學院學報》2007年第1期，102-103、108頁。
劉文正 2009 名量詞判定新論，《貴州師范大學學報(社會科學版)》2009年第2期，136-139頁。
劉祥柏2004 北京話「一+名」結構分析，《中國語文》2004年第1期，36-39頁。
劉祥清、賈德江2004，漢語量詞和英語表量結構的修辭功能比較，《西安外國語學院學報》2004年第3期，29-31頁。
劉小冬、李學良、張蕾 2000 量詞在知識圖中的分類與表示，《小型微型計算機系統》2000年第5期，520-523頁。
劉曉然 2006 漢語量詞短語的詞匯化，《語言研究》2006年第1期，103-106頁。
劉曉榮 2009 泰語量詞的解析，《云南民族大學學報(哲學社會科學版)》2009年第6期，121-123頁。
劉新芳 2006 漢語「量詞」術語英譯正名，《術語標準化與信息技術》2006年第2期，14-17頁。
劉雪芹 2001 一個新興的量詞——抽，《語文建設》2001年第2期，12頁。
劉焱 1997 量詞修飾形容詞現象探討，《徐州師范大學學報(哲學社會科學版)》1997年第3期，151-152、155頁。
劉焱 1999 量詞與形容詞的搭配問題探討，《漢語學習》1999年第5期，60-63頁。
劉炎飛 2006 試論量詞的量和序，《邵陽學院學報(社會科學版)》2006年第1期， 84-86頁。
劉揚 2006 從量詞的使用看中日兩國語言使用的差異，《牡丹江師范學院學報(哲學社 會科學版)》2006年第3期，76-77頁。
劉永發 2002 是動詞重疊，還是借動詞為量詞?，《克山師專學報》2002年第4期，55-57頁。
劉章 1994 談量詞的修辭作用，《固原師專學報》1994年第2期，73-76頁。
劉壯虎 2009 無窮算子和量詞《湖南科技大學學報(社會科學版)》2009年第3期，31-34頁。

龍仕平 2009 以量詞為域論簡帛文獻的辭書學價值，《古漢語研究》2009年第4期，78-86頁。

龍仕平、李建平 2009 秦簡中的量詞及其歷時演變，《西華師范大學學報(哲學社會科學版)》2009年第4期，1-7頁。

龍耀宏 1998 漢藏語系諸語言關于動物量詞「頭」的來源，《貴州民族研究》1998年第3期，137-143頁。

陸儉明 2007 從量詞「位」的用法變異談起——中國語言學發展之路的一點想法，《語言科學》2007年第6期，33-35頁。

魯六 2009a 量詞「團」的認知語義基礎考察，《周口師范學院學報》2009年第6期， 62-64頁。

魯六 2009b 量詞「盤」和「局」用法的認知分析，《漢字文化》2009年第4期，54-56頁。

魯六 2010 量詞「叢」和「簇」的認知語義考察，《鄭州大學學報(哲學社會科學版)》2010年第3期，135-138頁。

陸脈 2008 再論「V個VP」結構中「個」字的性質，《蘇州教育學院學報》2008年第2期，66-69頁。

呂春燕 2007 現代日語量詞「本」的認知考察，《黑龍江教育學院學報》2007年第12期，152-156頁。

呂軍偉、鄭博 2010從量詞角度看現代漢語名量式合成詞問題，《雞西大學學報》2010年第2期，141-142頁。

呂時君 1994 科研論文中的量詞及其誤用示例，《菏澤師范專科學校學報》1994年第2期，88-89頁。

呂為光 2007 試論方言量詞「把」及其對普通話的影響，《株洲師范高等專科學校學報》2007年第6期，80-83頁。

呂永衛 2005 對《試論量詞「請」和「客」的文化語義色彩》的一點補正，《徐州工程學院學報》2005年第6期，12-13頁。

呂兆格 2009a 理據法在「藥」的量詞教學中的運用，《現代語文(語言研究版)》2009年第2期，117-118頁。

呂兆格 2009b量詞「門」的認知基礎與對外漢語教學，《華北水利水電學院學報(社科版)》2009年第2期，126-128頁。

呂兆格 2009c 對外漢語教學中「中藥」的量詞教學，《云南師范大學學報(對外漢語教學與研究版)》2009年第2期，73-75頁。

羅安源 2002 從量詞看苗漢兩種語言的關系，《中央民族大學學報(哲學社會科學版)》2002年第5期，117-124頁。

羅丹 2008a 《二刻拍案驚奇》外形特徵類名量詞研究，《現代語文(語言研究版)》2008年第7期，75-77頁。

羅丹 2008b 析《二刻拍案驚奇》名量詞的語法特徵、和語法功能，《安徽文學(下半月)》2008年第7期，288-289頁。

羅菲 2009 從搭配角度看量詞「對、雙、副」的語義特徵，《平頂山學院學報》2009年第3期，97-99頁。
羅菲、周麗穎 2004 量詞「副」的研究，《哈爾濱學院學報》2004年第5期，94-98頁。
羅黎 2010 量詞「對、副、雙」的辨析及其在對外漢語教學中的應用，《和田師范專科學校學報》2010年第4期，99-100頁。
羅美珍 1996 談談我國民族語言的數量詞，《民族語文》1996年第2期，26-35頁。
羅美珍 2007 漢、侗-泰、苗-瑤語聲調和量詞產生與發展的相同過程，《語言科學》2007年第6期，36-43頁。
羅昕如 2007 湘語「滴」的多功能用法，《漢語學報》2007年第3期，9-15、95頁。
羅興貴 2010 試論苗語量詞的虛化與語境關系，《貴州民族學院學報(哲學社會科學版)》2010年第6期，145-147頁。
麻愛民 2010a 漢語個體量詞研究中的語料使用問題，《中國語文》2010年第2期，168-172頁。
麻愛民2010b試論漢語個體量詞系統的萌芽期，《貴州師范大學學報(社會科學版)》2010第6期，129-132頁。
麻愛民2010c漢語個體量詞歷時發展研究述評，《嘉應學院學報》2010第9期，83-88頁。
馬貝加、張麗敏 2001 漢語量詞比喻用法初探，《語文研究》2001年第2期，33-37頁。
馬芳 2002 《淮南子》中的量詞，《臨沂師范學院學報》2002年第2期，119-121頁。
馬飛鵬 2010 近年來現代漢語臨時名量詞研究綜述，《現代語文(語言研究版)》2010年第7期，7-8頁。
馬洪海 2008 現代漢語「數+名」組合的類型及其成因，《浙江師范大學學報(社會科學版)》2008年第5期，83-86頁。
馬叔駿 2008 漢語量詞的量和質，《漢字文化》2008年第2期， 33-37頁。
馬玉汴 2005 意象理論在漢語量詞辨析中的認知作用，《鄭州大學學報(哲學社會科學版)》2005年第4期，152-154頁。
麥宇紅 2003 從量詞「堆」與「疊」的形成演變看其用法差異，《阜陽師范學院學報(社會科學版)》2003年第3期，38-39頁。
孟繁杰 2009 量詞「條」的產生及其歷史演變，《寧夏大學學報(人文社會科學版)》2009年第1期，35-40頁。
孟繁杰、李如龍2010 量詞「張」的產生及其歷史演變，《中國語文》2010年第5期，469-476、480頁。
苗博2009 也談對外漢語量詞教學，《語文學刊》2009年第22期，49-50頁。
苗博 2010 借用計人量詞的認知分析，《現代語文(語言研究版)》2010年第12期，42-43頁。

苗丹民、胡文東、董燕、陳毅文 1997 肯定性「重要度」語義量詞的多級估量模糊集模型建立及其應用，《心理科學》1997年第6期，551-552、524-576頁。

敏春芳 2005 敦煌社邑文書量詞「事」、「笙」辨考，《敦煌學輯刊》2005年第2期，180-183頁。

敏春芳 2010 敦煌吐魯番出土文書飲食量詞訓釋，《藝術百家》2010年第4期，201-204、110頁。

敏春芳、馬有 2005 敦煌吐魯番文書中衣物量詞例釋，《蘭州大學學報(社會科學版)》2005年第4期，68-73頁。

年玉萍 2008a 探析量詞的語法、語義、語用特徵，《時代文學(下半月)》2008年第2期，54-55頁。

年玉萍 2008b 現代漢語量詞的色彩意義，《時代文學(下半月)》2008年第4期，40-41頁。

牛巧紅 2007 量詞「只」、「頭」的認知分析與對外漢語教學，《鞍山師范學院學報》2007第3期，81-84頁。

牛太清 2001 量詞「重/層」歷時更替小考，《古漢語研究》2001年第2期，38-40頁。

N・S・努爾哈畢 2004 試談哈薩克語量詞的構成方式，《語言與翻譯》2004年第2期，45-47頁。

彭文芳 2004 元代量詞研究札記，《西華師范大學學報(哲學社會科學版)》2004年第6期，88-92頁。

彭媛 2009a 由量詞「串」管窺對外漢語量詞教學，《云南師范大學學報(對外漢語教學與研究版)》2009年第5期，41-42頁。

彭媛 2009b 漢語「一量多名」現象的范疇化解析——以量詞「串」為例，《贛南師范學院學報》2009年第1期，71-74頁。

彭媛 2009c 漢語量詞的轉義途徑探析，《語文學刊》2009年第1期，107-108頁。

彭媛 2010 漢語量詞的語義演變研究，《西南石油大學學報(社會科學版)》2010年第2期，92-96、1-2頁。

彭宗平 2004北京話里的特殊量詞，《北京社會科學》2004年第3期，146-155頁。

戚曉杰 2001 關于量詞「位」規范性的思考，《中國海洋大學學報(社會科學版)》2001年第2期，79-84頁。

戚曉杰 2002 也談量詞「位」的語義特徵，《修辭學習》2002年第1期，34-35頁。

戚曉杰 2010 漢語量詞帶定語現象的進一步考察，《魯東大學學報(哲學社會科學版)》2010年第1期，60-63頁。

秦名娟 2007 現代漢語數量結構的替代功能，《安慶師范學院學報(社會科學版)》2007年第6期，73-74頁。

邱瓊 2010 漢、泰語中用于人的量詞的異同，《紅河學院學報》2010年第3期，100-103頁。

邱湘雲 2007 閩南語和客家話的「量詞」－與國語比較，《玄奘人文學報》2007年第6期，1-26頁。

單滿菊 1995 談談漢語量詞的英譯法，《平頂山師專學報》1995年第1期，45-46頁。

單韻鳴 2005 廣州話量詞「條」的語體色彩再酌，《學術研究》2005年第9期，146頁。
邵敬敏 1996 動量詞的語義分析及其與動詞的選擇關系，《中國語文》1996年第2期，100-109頁。
邵勤 2005 動量詞研究綜述，《江蘇教育學院學報(社會科學版)》2005年第4期，69-72頁。
邵文利、杜麗榮 2003 數量詞古今用法之異同，《西南民族大學學報(人文社科版)》2003年第9期，303-305頁。
葉正渤、褚紅 2004 關于「身」的詞義研究，《重慶職業技術學院學報》2004年第2期，23-25頁。
盛林 2003 語法手段·修辭方式·常規結構——試論量詞短語在漢語言語中的演化，《海南師范學院學報(社會科學版)》2003年第3期，53-56頁。
盛林 2004 從單純表量到多元化表意——試論漢語歷時發展中的「數量名」結構，《山東大學學報(哲學社會科學版)》2004年第1期，94-98頁。
盛林、漢語中 2003 「一+量+名」結構的語用研究，《濰坊學院學報》2003年第1期，61-64頁。
施其生 1996 廣州方言的「量+名」組合，《方言》1996年第2期， 113-118頁。
施其生 1997 汕頭方言量詞和數量詞的小稱，《方言》1997年第3期，233-236頁。
史文磊 2008 漢語中真的存在量詞「掘」嗎?——《談敦煌卷子中的量詞「掘」》讀后，《中國語文》2008年第3期，281-284頁。
石毓智、雷玉梅 2004 「個」標記賓語的功能，《語文研究》2004年第4期，14-19頁。
石毓智 2001 表物體形狀的量詞的認知基礎，《語言教學與研究》2001年第1期，34-41頁。
宋成吉、張桂梅 2010 量詞「人」新探，《學術交流2010》2010年第8期，147-149頁。
宋建勇 2006 現代漢語物量詞和名詞搭配的認知解釋，《現代語文(語言研究版)》2006年第12期，20-21、26頁。
宋晉宇、李英 2003 英漢數量概念表達的比較與賞析，《貴陽金筑大學學報》2003年第3期，82-83頁。
宋仁桃 2009 量詞「鋪」與唐道教造像，《中華文化畫報》2009年第8期，90-93頁。
宋淑敏 2006 中英文化中量詞對比研究(英文)，《齊齊哈爾大學學報(哲學社會科學版)》2006年第4期，139-140頁。
宋文輝 2005 詞序與「量」否定的結果，《河北師范大學學報(哲學社會科學版)》2005年第6期，75-82頁。
宋玉柱1994 關于「復合量詞」這個術語，《漢語學習》1994年第1期，14頁。
蘇昉 2003 敦煌契約中的量詞，《江南大學學報(人文社會科學版)》2003年第4期，72-76、89頁。
蘇昉 2001 量詞加詞尾五代已見，《中國語文》2001年第1期，37頁。
隋雪、畢鴻燕 2007 閱讀理解中漢語量詞的眼動特點分析，《心理科學》2007年第5期，1065-1067頁。
孫春穎 2003 由動詞借入的物量詞「抽」和「入」，《語文教學與研究》2003年第3期，49頁。

孫繼善 1996 數量短語組合功能之考察，《集寧師專學報》1996年第2期，14-24頁。
孫娟娟、王會剛 2009 從關聯理論的角度分析數量詞的模糊性，《文教資料》2009年第24期，48-51頁。
孫琴 2004 淺議量詞的修辭作用，《哈爾濱學院學報》2004年第7期，23-26頁。
孫汝建 1996 關于量詞「個化」論的思考，《云南師范大學學報(哲學社會科學版)》1996年第1期，.70-74頁。
孫文訪 2010 對「把+一+量+名詞」句式的考察與分析，《現代語文(語言研究版)》2010年第2期，30-34頁。
唐翠菊 2002 數量詞在多層定名結構中的位置，《語言教學與研究》2002年第5期，28-35頁。
唐鳳鳴 2006 談「量+名」結構的可逆形式，《廣西教育學院學報》2006年第1期，109-110頁。
唐紅松 2008 古漢語數量詞用法考察，《和田師范專科學校學報》2008年第2期，113-115頁。
唐苗 2007 量詞「條」與「根」的比較研究，《武漢理工大學學報(社會科學版)》2007第4期，562-564頁。
唐淑宏 2008 對外漢語量詞教學的偏誤分析，《沈陽師范大學學報(社會科學版)》2008年第2期，105-108頁。
唐小芬、葉桂郴 2009 「基準單位」和量詞的虛化，《古漢語研究》2009年第4期，73-77頁。
唐瑛 2001 武勝方言量詞初探，《阿壩師范高等專科學校學報》2001年第2期，39-41頁。
田皓、甘智林 2003 「V+數詞(一)+動量詞+N」的認知分析，《衡陽師范學院學報》2003年第2期，90-94頁。
田琳 2005 概念整合與漢語量名詞超常搭配，《湘南學院學報》2005年第1期，72-74、82頁。
田鑫 2009 第一語言及第二語言的量詞習得對比研究，《語文學刊(外語教育與教學)》2009年第3期，95-96、148頁。
田有成、曾鹿平 2000 近代漢語數詞表示法，《延安大學學報(哲學社會科學版)》2000年第3期，99-101頁。
余劍 2009 《春秋公羊傳》中的量詞及數量表示法，《現代語文(語言研究版)》2009年第1期，51-52頁。
余瑞雪 2009 現代漢語「數+量+形」結構成因探析，《哈爾濱學院學報》2009年第4期，98-102頁。
余小強 2005 特徵結構內的量詞排序與數量疑問短語的歧義解讀，《外國語(上海外國語大學學報)》2005年第4期，14-21頁。
翁振山 2010 量詞「對」、「副」、「雙」的比較研究，《語文學刊》2010年第3期，89-90頁。
萬波 1996 贛語永新方言量詞的清聲濁化，《語文研究》1996年第3期，48-51頁。

萬獻初 2000 漢語量詞分類系源，《咸寧師專學報》2000年第4期，47-51頁。
萬中亞 2007 「個個」的語義和語法功能考察，《現代語文(語言研究版)》2007年第1期，51-52頁。
萬獻初 2003 湖北通城方言的量詞「隻」，《方言》2003年第2期，187-191頁。
王愛和、周吉勝 1998 「借用量詞」的藝術效果，《語文知識》1998年第11期，50-53頁。
王春玲 2005a 探析定數量詞「雙」與「對」，《寧夏大學學報(人文社會科學版)》2005年第1期，33-36頁。
王定康、明茂修 2006 《洛陽伽藍記》中的量詞，《語文學刊》2006年第14期，150-151頁。
王冬梅 1997 現代漢語量詞研究綜述，《揚州大學學報(人文社會科學版)》1997年第6期，56-60頁。
王貴云 1994 嚴密、精確、簡潔、揭示數學概念內涵的量詞，《咸寧師專學報》1994年第4期，11-14頁。
王漢衛 2004 量詞的分類與對外漢語量詞教學，《暨南學報(人文科學與社會科學版)》2004年第2期，113-116、141-142頁。
王宏鳳 2010 別有深意的量詞，《語文教學通訊2010》2010年第8期，46-47頁。
王宏佳 2001 「數名_1名_2」結構考察，《湖北師范學院學報(哲學社會科學版)》2001年第4期，92-95頁。
王華 2000 淺議漢語量詞的英譯，《黑龍江交通高等專科學校學報》2000年第2期，47-48頁。
汪化云 1996 黃岡方言量詞的單用，《語言研究》1999年第2期，75-81頁。
汪化云 2001 這些「個」不是吳語成分，《中國語文》2001年第2期，155頁。
王會琴 2005 「V+個+ VP」語義分析，《宜賓學院學報》2005年第8期，88-90頁。
王火紅 2006 「好+A+一個」的意義、構造及功能，《現代語文(語言研究版)》2006年第3期，77-79頁。
王建民 2001 《睡虎地秦墓竹簡》量詞研究，《康定民族師范高等專科學校學報》2001第3期，76-78頁。
王建軍 1997 略議「一+量」格式中「一」的脫落，《徐州師范大學學報(哲學社會科學版)》1997年第3期，44-48頁。
王潔 2004 從認知角度看量詞「片」修飾視覺域具體名詞，《樂山師范學院學報》2004年第3期，56-58頁。
王潔 2001 說「N滿(一、渾)N_1的N_2」句式，《漢語學習》2001年第4期，37-40頁。
王進 2008 《元曲選》中「你這(個)NP」的語用功能，《修辭學習》2008年第1期，58-60頁。
王靜 1999 直言判斷的量詞與周延性問題，《重慶師院學報(哲學社會科學版)》1999年第4期，107-110頁。
王晶 2004 從語法角度看區別詞和量詞，《克山師專學報》2004年第1期，96-98頁。
王君君、姚子艷 2008 試論15世紀漢語量詞的新發展——以15世紀朝鮮漢語教科書為例，《社科縱橫(新理論版)》2008年第4期，157-158頁。
王蘭 2006 量詞「位」的誤用，《語文知識》2006年第9期，46頁。

王立 2001a 數量結構的分合與韻律構詞，《江漢大學學報》2001年第5期，50-53、88-111頁。
王立 2001b 「數+量」結構拼寫分合談，《嘉興學院學報》2001年第2期，71-76頁。
王莉 2001 標示焦點:「動+個+名」中的「個」，《華南師范大學學報(社會科學版)》2001年第4期，139-141頁。
王黎、郭佳、畢彥超、舒華 2006 漢語名詞短語產生中的量詞一致性效應，《心理與行為研究》2006第1期，34-38頁。
王立鳳 2006 賓位數量名結構中「一」字隱現的認知研究，《福建農林大學學報(哲學社會科學版)》2006年第1期，91-93頁。
王立科 1998 試論喻體化量詞的意象美，《廣西社會科學》1998年第2期，100-102頁。
王立群 2007 個:從量詞到助詞，《周口師范學院學報》2007年第3期，117-121頁。
王利濤 2008 「再+少+V+量詞」結構探析，《萍鄉高等專科學校學報》2008年第2期，106-109頁。
王敏 2000 古漢語數詞及數量表示法探津，《內蒙古電大學刊》2000年第5期，8-9頁。
王啟濤 2003 量詞加詞尾不晚于唐代，《中國語文》2003年第5期，460-461頁。
王瑞梅 2010 《西洋記》 中介詞「把」的用法初探，《現代語文(語言研究版)》2010年第1期，30-32頁。
王紹新 1997 從幾個例詞看唐代動量詞的發展，《古漢語研究》1997年第2期，40-46頁。
王紹新 2005 試論「人」的量詞屬性，《中國語文》2005年第1期，39-43頁。
王素梅 1996 從漢語量詞的形象性談量詞的用法及教學，《語言與翻譯》1996年第1期，58-60頁。
王素平 2005b 量詞「雙」與「對」的辨析，《云南師范大學學報(對外漢語教學與研究版)》2005年第4期，57-59頁。
王彤偉 2005 量詞「頭」源流淺探，《語言科學》2005年第3期，68-73頁。
王宛磐 1995 論專有名詞前的數量詞附加語，《許昌師專學報》1995年第2期，90-93頁。
王文斌 2008 漢英「一量多物」現象的認知分析，《外語教學與研究》2008年第4期，257-261、320頁。
王文斌 2009 論漢英形狀量詞「一物多量」的認知緣由及意象圖式的不定性，《外語教學》2009年第2期，6-11頁。
王文藝 1997 關于敦煌變文量詞語法功能的幾個問題，《貴州民族學院學報(哲學社會科學版)》1997年第4期，44-48頁。
王霞 2009 湖南慈利話的重疊兒化量詞、量詞結構及主觀量，《牡丹江大學學報》2009年第1期，42-44頁。
王祥榮、朱萬喜 2000 變換分析對「V+一量N」結構的分化，《蕪湖職業技術學院學報》2000年第4期，78-81頁。

王向陽 2010 《漢語大詞典》在量詞釋義方面存在的問題，《現代語文(語言研究版)》2010年第12期，157-158頁。
王遠明 2010b 《五燈會元》量詞的語義特徵，《現代語文(語言研究版)》2010年第6期，62-64頁。
王曉玲 2001 漢英量詞之比較，《南京航空航天大學學報(社會科學版)》2001年第1期，42-44頁。
汪小玲、李翩 2009 個體量詞的產生及其歷史演變過程探析——以量詞「本」為例，《欽州學院學報》2009年第2期，95-97、118頁。
王小敏 2007 《水滸傳》中量詞用法摭析，《青海社會科學》2007年第6期，95-99頁。
王小敏、葛正方 2003 《水滸傳》中量詞的用法分析，《中國古代小說戲劇研究叢刊》2003年，287-296頁。
王曉駟 2000 漢英事物數量句式探微，《四川外語學院學報》2000年第4期，63-66頁。
王學昭2000關于「指、拈、捏、撮、抓、把、捧」，《漢字文化》2000年第2期，51-54頁。
王欣 2010 現代漢語量詞的語義模糊性，《宜賓學院學報》2010年第9期，77-79頁。
王鑫磊 2006 修辭性量詞同樣與量有關，《現代語文(語言研究版)》2006年第2期，105頁。
王興隆、王道權、李敏 2008 「每(隔)+數量詞+VP」表義離合的多維闡釋，《集美大學學報(哲學社會科學版)》2008年第3期，53-57頁。
王新華 1994 敦煌變文中量詞使用的幾個特例，《中國語文》1994年第4期，317-318頁。
王秀玲 2009 談量詞「領」的起源和發展——兼論「領」和「件」的歷時替換，《廣州大學學報(社會科學版)》2009第3期，89-92頁。
王亞麗 2010 敦煌古醫籍中的名量詞，《南京中醫藥大學學報(社會科學版)》2010年第2期，78-81頁。
王延菊 2000 英語量詞淺析，《河北工業大學成人教育學院學報》2000年第1期，37-39頁。
王勇 2006 「數量詞+名詞」與「的」，《社會科學家》2006年第S1期，331-332頁。
王遠明 2010a 《五燈會元》名量詞句法功能考察，《語文學刊》2010年第15期，04-106頁。
王月 1994 量詞及其分類芻議，《黑龍江教育學院學報》1994年第1期，47-48頁。
王云輝 2009 對外漢語教學中的量詞形象色彩，《語文學刊(外語教育與教學)》2009年第10期，167-168頁。
王志芳 2002 量詞「個」的使用泛化管見，《海南廣播電視大學學報》2002年第2期，49-51頁。
王之光 1998 論英漢數量關系的表達，《外語與外語教學》1998年第4期，18-20頁。
王志武 1999 「個」的非量詞用法及其詞性，《煙臺師范學院學報(哲學社會科學版)》1999年第3期，94-95頁。
王子今 2003 敦煌懸泉置遺址出土《雞出入簿》小議——兼說漢代量詞「只」、「枚」的用法，《考古》2003年第12期，77-81頁。

王宗炎 2008 關于漢語表述中人稱量詞的選用，《新聞記者》2008年第10期，76-77頁。
魏德勝 2000 《敦煌漢簡》中的量詞，《古漢語研究》2000年第2期，74-78頁。
魏紅 2006 「倆」、「仨」與北京話陽平「一」的音變類型問題，《東岳論叢》2006年第6期，155-157頁。
魏兆惠 2010 「周」、「匝」名量、動量用法的歷史發展，《保定學院學報》2010年第5期，72-75頁。
魏兆惠、華學誠 2008量詞「通」的歷史發展，《漢語學報》2008第1期，19-26、95頁。
吳非 1995 一九四九年以前量詞研究綜述，《新疆師范大學學報(哲學社會科學版)》1995年第4期，66-69頁。
吳鋒文 2006 「數量」與「名_1+的+名_2」的組合語義分析，《綏化學院學報》2006年第6期，146-148頁。
吳天霞 1995 名詞動詞借用為量詞時的作用，《山西教育》1995年第4期，45頁。
吳婷婷 2010 量詞「個」的歷時發展及其表量泛化的原因分析，《文學界(理論版)》2010第8期，105-106頁。
吳畏2009從構詞成句方式看古詩詞的藝術特色——以量詞為例，《貴州社會科學》2009第4期，117-119頁。
吳文婷、劉雪芹 2009 「一(半、幾、兩)+量詞+中心語」結構語義研究，《現代語文(語言研究版)》2009年第6期，52-54頁。
吳賢英 2010 慈利方言量詞的重疊，《作家》2010年第4期，143-144頁。
吳曉君 2006 試論「NN」類名詞與量詞的雙向選擇，《湖南科技學院學報》2006年第1期，157-159頁。
武曉麗 2005 《張家山漢簡・二年律令》中的量詞，《江西廣播電視大學學報》2005年第3期，48-50頁。
吳新民 2004 試論性質命題主、謂項周延性的量詞方法，《牡丹江師范學院學報(哲學社會科學版)》2004年第4期，23-24、61頁。
吳永煥 2005 北京話「一個」弱化的原因，《語言教學與研究》2005年第2期，63-67頁。
吳遠恒 1999 漢語量詞的英語表達，《上海電力學院學報》1999年第4期，75-79
吳錚 2009 殷周漢語名量詞辨析，《殷都學刊》2009年第3期，31-34頁。
武仲波 2010 漢語文學作品中量詞名詞超常搭配的認知隱喻探析，《南華大學學報(社會科學版)》2010年第3期，80-83頁。
席嘉 2008 《宋元明清動量詞研究》讀后，《湖南科技大學學報(社會科學版)》2008年第6期，127-128頁。
肖從禮 2008 從漢簡看兩漢時期，量詞的發展，《敦煌研究》2008年第4期，98-103頁。
肖國萍 1996 與量詞有關的歧義結構，《福建論壇(人文社會科學版)》1996年第2期，72-75頁。
肖牡丹 2008 概數詞「把」的歷史考察，《現代語文(語言研究版)》2008年第10期，34-35頁。

辛菊、李旻 2009 山西大同方言中「個」的非量詞用法，《山西師大學報(社會科學版)》2009年第1期，121-124頁。
謝禮波 2002 不必逢人稱「位」，《采.寫.編》2002年第6期，60頁。
謝玲玲 2006 說「張」「道」「面」，《高等函授學報(哲學社會科學版)》2006年第5期，35-37頁。
謝潤姿 2008 廣東揭陽方言量詞初探，《廣西教育學院學報》2008年第5期，130-132頁。
謝新暎 2005《紅樓夢》量詞研究，《福建教育學院學報》2005年第7期，86-90頁。
謝玉球 2009 從《全唐詩》看「」個「」在唐代的新變，《語文學刊》2009年第21期，49-50頁。
徐芳 2007 漢語量詞與修辭格，《現代語文(語言研究版)》2007年第10期，55-56頁。
許光燦 2005 「十大金曲」之「大」不應看成量詞——與李勝梅先生商榷，《修辭學習》2005年第1期，64-65頁。
徐慧文 2005 《醒世姻緣傳》專用量詞研究，《聊城大學學報(社會科學版)》2005年第6期，118-119、123頁。
徐慧文 2006 《醒世姻緣傳》方言量詞研究，《濱州學院學報》2006年第1期，65-68頁。
徐慧文 2008 《醒世姻緣傳》動量詞的風格特徵，《時代文學(下半月)》2008年第7期，124-125頁。
徐慧文 2009 《 醒世姻緣傳》同形量詞研究，《濱州學院學報》2009年第1期，71-73頁。
許建章 2009 古典詩詞量詞妙用探析，《飛天》2009年第24期，48-49頁。
徐今 2008 說說「雙」的詞性——兼論詞類的劃類策略，《長江學術》2008年第2期，115-118頁。
徐景宜 2009 「顆」與「粒」選擇差異及范疇化過程，《淮北煤炭師范學院學報(哲學社會科學版)》2009年第3期，\117-120頁。
許菊芳 2003 試從三個平面看量詞形式中心語不出現的現象，《昭烏達蒙族師專學報》2003年第4期，38-39頁。
徐力 2007 春秋金文量詞考析，《浙江海洋學院學報(人文科學版)》2007年第2期，39-42頁。
徐琳、傅京起 2004 古白語貝幣名和量詞的遺存，《民族語文》2004年第6期，9-15頁。
許實年 2008 「V一臨時量詞N」結構中「一」的省略與保留，《西昌學院學報(社會科學版)》2008年第1期，10-12頁。
許王橋 2010 基于語料庫的「年、月、星期，、小時」等詞的詞性分析，《現代語文(語言研究版)》2010年第7期，24-25頁。
徐揚 2001 小議「名量」詞的范圍，《鎮江師專學報(社會科學版)》2001年第2期，79-82頁。
許仰民 2005 論《金瓶梅詞話》的物量詞，《信陽師范學院學報(哲學社會科學版)》2005年第1期，54-60頁。

徐正考 1999 漢代銅器銘文中的數量詞，《煙臺師范學院學報(哲學社會科學版)》1999第1期，20-22、32頁。
徐祖友 1996 《現代漢語學習詞典》中的量詞，《外語界》1996年第2期，63-64頁。
薛粉玲、童朝華 2006 從整合理論看人體量詞的隱喻機制，《浙江工商職業技術學院學報》2006年第2期，23-25頁。
薛健 2006 量詞「個化」問題管見，《漢語學習》2006年第5期，22-27頁。
薛健 2009 個_1、個_2、個_3——「個」的語法功能及語法意義研究，《南京廣播電視大學學報》2009年第3期，12-20頁。
薛培 2008 古代漢語中數量詞的發展演變，《語文學刊》2008年第22期，116-117、119頁。
薛巧慧 2007 《儒林外史》中的名量詞與修辭，《萍鄉高等專科學校學報》2007年第4期，87-91頁。
薛小英 2009 漢語量詞轄域的最簡研究，《湖南大學學報(社會科學版)》2009年第5期，99-102頁。
薛秀娟 2004 量詞「款」的擴張運用及其原因，《語文學刊》2004年第12期，61-62頁。
閆新紅 2009 漢維語量詞對比探析，《烏魯木齊成人教育學院學報》2009年第3期，27-30頁。
嚴修鴻 1999 福建西部方言的量詞「莖」字，《汕頭大學學報(人文科學版)》1999年第6期，62-65頁。
楊愛姣2000「數・量・名」定中結構的變異搭配，《襄樊學院學報》2000年第3期，53-56頁。
羊芙蕨 2004 量詞的辭格，《阜陽師范學院學報(社科版)》2004年第1期，77-79頁。
楊劍橋 2009 漢語動量詞不產生于先秦說，《語言研究》2009年第2期，22-26頁。
楊將領 2005 藏緬語數量短語的演變機制，《民族語文》2005第3期，44-51頁。
楊凱榮 2003 「量詞重疊+(都)+VP」的句式語義及其動因，《世界漢語教學》2003年第4期，13-21、2頁。
楊玲 2006 論英漢語量詞之差異，《牡丹江教育學院學報》2006年第2期，34-35頁。
楊雪梅 2002 「個個」、「每個」和「一個(一)個」的語法語義分析，《漢語學習》2002年第4期，26-31頁。
楊月蓉 2000 重慶方言量詞的語法特點，《渝州大學學報(社會科學版)》2000年第2期，72-77頁。
楊正超 2007 現代漢語時量詞研究概述，《東南傳播》2007年第9期，87-88頁。
楊州 2007 金文「品」及「裸玉三品」梳析，《山西師大學報(社會科學版)》2007年第3期，130-132頁。
姚霽珊 2004 談量詞的異常搭配，《楚雄師范學院學報》2004年第2期，41-43頁。
姚雙云、樊中元 2002 漢語空間義量詞考察，《湖南師范大學社會科學學報》2002年第6期，107-112頁。
姚曉波 2005 動量短語的語法功能，《渤海大學學報(哲學社會科學版)》2005年第6期，11-13頁。

葉桂郴 2004a 量詞「頭」的歷時考察及其他稱量動物的量詞，《古漢語研究》2004年第4期，68-73頁。
葉桂郴 2004b 漢語中量「人」量詞的歷時考察，《社會科學家》2004年第6期，138-141頁。
葉桂郴、羅智豐 2007 漢語動量詞形成的原因，《古漢語研究》2007年第3期，81-85頁。
葉桂郴 2008 明代新生量詞考察，《古漢語研究》2008年第3期，61-65頁。
葉桂郴、劉炎飛 2008 從「個」和「枚」等三對量詞的歷時演變看漢語量詞發展的機理，《玉林師范學院學報》2008年第1期，64-69頁。
葉桂郴、羅智豐 2009 量詞「品」的新發展，《桂林航天工業高等專科學校學報》2009年第4期，514-516頁。
于寶娟 2000 量詞、數量短語重疊后的語義及句法功能，《內蒙古教育學院學報》2000年第2期，66-67頁。
于寶娟 2000 談量詞活用的修辭作用，《內蒙古民族師院學報(漢文版*哲學社會科學版)》2000年第3期，60-62頁。
俞玨 2005 關聯理論與漢語形式量詞短語英譯，《合肥工業大學學報(社會科學版)》2005年第5期，108-112頁。
于立昌 2007 動量詞與名量詞辨析，《現代語文(語言研究版)》2007年第8期，54-55頁。
羽離子 2005 關于對外漢語的量詞教學的不同意見，《南通大學學報(教育科學版)》2005年第4期，86-89頁。
于玲 2006 名量詞在「一+X+N」結構中的兩個作用，《錦州醫學院學報(社會科學版)》2006年第2期，69-7263-68頁。
于璐 2008 量詞「幅」的義項分析，《甘肅社會科學》2008年第4期，62-64頁。
于濤 2004 《老乞大》和《樸通事》的名量詞研究，《云南師范大學學報(對外漢語教學與研究版)》2004年第6期，25-27頁。
俞燕 2009 談量詞「個」與「位」，《宿州學院學報》2009年第1期，54-56頁。
于燕 2009 《西游記》中量詞使用的特點，《甘肅聯合大學學報(社會科學版)》2009年第3期，54-57頁。
袁仁智 2005 《元曲選》量詞系統的歷時比較，《湘南學院學報》2005年第6期，84-87頁。
張永祥，曹翠云 1996 黔東苗語的量名結構，《中央民族大學學報(哲學社會科學版)》1996年第2期，66-71頁。

張玉萍 1999 現代維語量詞語法、語義、語用分析，《新疆大學學報(哲學社會科學版)》1999年第1期，102-106頁。
張玉萍 2001 維語量詞的形象性和模糊性，《語言與翻譯》2001年第3期，14-17頁。
趙日新 2003 漢語東南方言量詞的語法功能,《中國語文研究》2003年第1期，61-70頁
紫騰嘉、李學琴 1999 藏語的數量詞， 《西南民族學院學報(哲學社會科學版)》，1999年第S2期，25-29頁。

One-Soon Her[1,2], Wan-Ting Li[1], & Yu-Hsuan Chen[1]
[1]Graduate Institute of Linguistics
[2]Research Center of Mind, Brain, and Learning
National Chengchi University
Taipei, Taiwan 116
hero@nccu.edu.tw

漢語分類詞與量詞研究的書目

何萬順[1,2]、李琬婷[1]、陳郁萱[1]
國立政治大學語言學研究所[1]
國立政治大學語言學研究所暨心腦學研究中心[2]

出席國際會議心得報告

計畫主持人：何萬順

計畫執行單位：國立政治大學語言學研究所

計畫名稱：

台灣華語中的分類詞：書目、語料庫與詞彙功能語法分析

計畫類別：個別型計畫

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計畫主持人於2010年於11月20日至22日期間訪問澳門大學，住宿於該校校區內招待所，期間均與該校文學院之語言學教師與學生互動、聚餐、訪談，並於22日下午發表演講，主題正是本計畫之主題，會後並再次與澳門當地多位語言學學者與學生互動，交換研究心得。

計畫主持人於2010年於12月18日至20日期間訪問香港大學，住宿於該校安排之Traders Hotel，期間與香港多位學者、語言學專家及學生互動、聚餐、訪談，並於20日下午發表演講，主題也是本計畫之主題，會後並再次與港大多位語言學學者與學生互動，交換研究心得。

計畫主持人於2011年於4月1日至5日期間訪問深圳大學，住宿於友人安排之私人會所，期間與深圳多位學者、語言學專家及學生互動、聚餐、訪談，並於2日下午發表演講，主題也是本計畫之主題，會後並再次與深大多位語言學學者與學生互動，交換研究心得。

以上數次演講均深獲與會學者的好評，其中反映最熱烈多半是對外華語的學者，一致認為本計畫所研究出的成果對於華語教學有重要的貢獻。當地學者也都一再邀請主持人將來再來訪問、研究並演講。

本人為「台灣語言學期刊」*Taiwan Journal of Linguistics*主編，因此另一收穫是於各個大學介紹該期刊，與多位學者交換經驗與看法，並且商討合作的可能。