Approaches to teaching Chinese are mainly based on teaching rules which students have to learn, particularly when it comes to the use of measure words which, according to the currently favoured methodology, we must use 'whenever' we find ourselves in certain language contexts and 'always' collocate with certain nouns. This methodological approach starts to fall apart as soon as we are faced with real-life usage of measure words because it does not consider pragmatic factors.

In this article I offer a descriptive analysis of measure words as discourse cohesion devices. For the purposes of this analysis, I refer to the following cohesion devices: reference, substitution, ellipsis and lexical cohesion (repetition, synonymy and collocation). In addition, I pay particular attention to an extremely important aspect of collocation regarding Chinese measure words: their disambiguating function. My analysis and the examples I give in this article attempt to demonstrate that the use of measure words is, in effect, discourse sensitive. It follows that, if we adopt a pragmatic-analytical approach, we can overcome most of the shortfalls of a grammar-oriented approach and better appreciate which factors come into play and can condition the use and choice of measure words.

1. Introduction

Chinese measure words (also known as classifiers)\(^1\) have been studied from various perspectives and approaches but, apart from a few exceptions, one rarely finds scholars who have come up with innovative contributions to resolve questions that have been pending ever since the beginning of formal studies into the Chinese language. The manner in which measure words are usually dealt with leaves much to be desired and has proved to be particularly ineffective when it comes to language teaching. As taught at present, students are not only given the impression that they need to memorise a series of grammatically correct
collocations,\textsuperscript{2} (even though from the students' perspective, these collocations appear to be arbitrary), but also are usually told, when they ask about the meaning and function of these measure words, that they are void of information or redundant. This situation further adds to the evident gap between theory and practice, and the students' interest in overcoming this language acquisition obstacle practically disappears when they conclude that measure words are not essential for communication and therefore learning them is not worth the effort. This state of affairs leads to a certain degree of failure in the students' acquisition or, at best, a very limited command of the real possible uses of measure words.

This situation is explained by the fact that the rules governing the use of Chinese measure words in given language contexts and of measure word-noun collocations are only explained formally, that is, merely from a prescriptive grammar perspective. If our analysis of these words' functions and use does not go beyond grammatical analysis, then we are limited by notions of grammaticality, and these prove to be totally inadequate when we are faced with real-life use of Chinese measure words; what is taught in the classroom as non-grammatical or inappropriate is frequently used by native speakers in both spoken and written Chinese.\textsuperscript{3} If, on the other hand, we look at how these words are used in practice, that is, not how they are described according to grammar rules but rather how they are used in discourse, and if we turn our attention to the role they play in communication, we have to resort to functional explanations as provided by pragmatics. It follows that we can only explain this linguistic phenomenon holistically through a pragmatic analysis because this approach to discourse enables us to establish whether the discourse is appropriate or effective (or not) even though at the outstart we could label some aspects as non-grammatical or inappropriate. As examples, take the use of non-specific 个 (ge) when more specific measure words are available; the omission of a measure word when theoretically one should be used; or the occurrence of non-standard collocations.\textsuperscript{4}
In this article, I propose that measure words should be analysed as discourse cohesion devices, an approach that has never been adopted to date. I base this approach on a catalogue of resources drawn up by Halliday and Hasan (1976), and furthermore add a section of my own devoted to the role of measure words as disambiguation devices. By way of introduction, I shall begin with an overview of what has been done to date concerning the discourse functions of measure words.

2. The discourse functions of measure words

It should be pointed out that there are few studies on the discourse aspects of Chinese measure words. Nevertheless, these studies represent important contributions to be taken into consideration, as they have opened up the field defined by the most commonly known traditional views on the use and function of measure words. It also needs to be stated that more often than not, these studies did not attempt to deal directly with the discourse functions of Chinese measure words, but rather have indirectly covered related aspects which have contributed to the question of how these words are used. It is for this reason that I feel it pertinent to formally acknowledge these studies here.

Erbaugh (1984:41) was the first to question the idea that the use of Chinese measure words reflected a rigid classification system based on objective and inflexible factors, and instead proposed a completely different interpretation: that it is use itself which determines this system. In other words, the measure words are a discourse sensitive device which can optionally be resorted to when it helps to provide useful information to orient the receiver. Thus, the influencing factors regarding use, instead of originating from the classification system itself and being applied to discourse (bottom up) is seen as working the other way round (top down).

In a later study, which analysed measure word acquisition by children, Erbaugh (1986:408) states that more specific Chinese measure
words appear the first time a new entity is mentioned, and that they appear more frequently with indefinite nouns than with definite nouns. Once the reference is established, subsequent references are made with the help of general measure words such as 个 (ge) or by means of constructions that do not require a measure word. Bisang (1999:150), in a study published many years later, is of a similar opinion in that, 'Another very important factor is discourse...'. New, indefinite entities are most likely to be marked by the normal classifier, i.e. a measure word other than 个 (ge).

Erbaugh (1986:431) also mentions the situation context as a conditioning factor which has its parallel in the historical origins of measure words:

They [the measure words] are most frequent in inventories of non-present goods which were stored, received, or desired; request for objects to be purchased or created; and in historical or fantastic narratives. All these uses specify objects which are not present, and might be misconstrued. Each of these contexts is more likely in a written rather than a spoken form.

One of the few studies that deals specifically with the discourse functions of measure words, Sun (1988:299), acknowledges that there is a close relationship between the thematic importance of the noun and whether to use a construction with a measure word or not. To be more specific, a noun phrase which is important from the point of view of the theme tends to incorporate a measure word in the discourse, and a noun phrase which is not so important thematically tends to omit it, even if doing so 'they [such noun phrases] do not adhere to the "grammar" of prepositional semantics'.

Li (2000a, 2000b) is another author who has analysed the role of Chinese measure words in discourse. Li (2000a:337) argues that: 'On the discourse level, numeral classifiers are used as a grounding mechanism to mark the salience of the NPs (Noun Phrases) they occur in'. She also finds that:
The use vs. non-use of numeral classifiers was found to correlate with independently definable salience vis-à-vis the referents of NPs (i.e. the quantity of pronominal modifiers, occurrence in presentative structures and the co-occurrence with foregrounded texts). (Li 2000a:361)

In an interlinguistic study, Aikhenvald (2000:320) states that the use of nominal classification devices can depend on: '…the role of the nominal argument in the discourse, its topic continuity, or the specificity of its reference'. What is interesting about her study is that she finds common denominators in different classifying languages, so we can conclude that Chinese is not unique in this respect.

To end this review of the existing literature on the discourse functions of measure words I would also like to mention an earlier study of mine (Rovira 2002) where I explored the use of measure words according to user profile (geographic origin, social status, etc.), register, text type (oral or written, directed at a general audience, technical, literary, etc.) and the situation context. The sender is in a position that is determined by circumstances and the receiver is the person the message is directed at, meaning that s/he has been chosen by the sender, who has constructed the message specifically for her/him; all of this has a major impact on the construction of the message. The use of measure words is not the same between two adults as, for example, between two children. The same applies if the discourse takes place in an academic context or in a market, since the social relationship between the interlocutors is most likely to change also. The sender, therefore, constructs his/her utterance according to his/her receiver, and the social relationship imposes a series of choices that determine the form of the utterance. All these relationships and factors which can determine the choice of collocations (leading to the overuse of 个 (ge) or even omission of the measure word) can only be studied and explained in a pragmatic approach, taking into consideration extra-linguistic factors which determine language use, particularly those that cannot be identified merely through grammatical analysis, such as the
sender, receiver, text producer's intentions, (spoken/written) context, context of situation and world knowledge.

3. Halliday and Hasan's cohesion mechanisms

The concept of cohesion is mainly semantic, since it refers to the relationship between signifiers within a text. Cohesion takes place when the interpretation of one discourse element depends on the interpretation of another. Hatim and Mason (1990) acknowledge the fact that cohesion mechanisms can vary between languages, that is, each language has its own text cohesion resources which take form partly via grammar (grammatical cohesion) and partly via vocabulary (lexical cohesion) (Halliday and Hasan 1976:4-6).

In spite of the fact that to date, Chinese measure words have never been analysed as text cohesion devices, they play a very important role in this respect. Halliday and Hasan (1976) identified a series of linguistic structures whose purpose is to create cohesive links between discourse elements. These linguistic elements are: conjunction, reference, substitution, ellipsis, and lexical cohesion. Although Halliday and Hasan were studying English, I believe their classification is a useful tool, perfectly applicable to Mandarin Chinese. This is illustrated by the fact that in all the aforementioned categories (with the exception of conjunction, which is not covered in this article), measure words play an active role. For these authors,

... all three are forms of presupposition, devices for identifying something by referring it to something that is already there – known to, or at least recoverable by, the hearer. Since this 'something' that is presupposed may be an element in a preceding sentence, these devices have a cohesive effect. (Halliday and Hasan 1976:144-5)

In the following sub-sections, I will discuss these four types of grammatical cohesion devices related to the use of measure words
within the nominal group, namely, reference (3.1), substitution (3.2), ellipsis (3.3), and lexical cohesion (3.4), illustrated with examples taken mainly from literary works. Ultimately, however, we should bear in mind that all classifications are a means of organising information and, therefore, should not be interpreted as rigid categories. In other words, these main categories are relative and can intersect, meaning that a particular example could be included in one of the other categories, depending on the analytical perspective adopted. As Halliday and Hasan (1976:88) put it, 'the classification of cohesive relations into different types should not be seen as implying a rigid division into watertight compartments'.

3.1. Reference

Reference consists of mentioning an item that has previously been introduced. Reference can be exophoric (the element referred to is retrievable from the situation context) or endophoric (the element referred to is retrievable from the text itself); the latter can be further divided into anaphoric and cataphoric. When a reference item is used anaphorically, it sets up a semantic relationship with something mentioned in the preceding text; a cataphoric relationship establishes reference to something that will be mentioned in the sequel. A reference item might point in any direction and the thing referred to must be identifiable. The reference item can be interpreted as either identical to the referent or in some way contrastive. From the perspective of measure words, the reference is expressed both exophorically and endophorically, and in the latter case, mainly anaphorically. But since exophoric reference does not contribute to text cohesion, below, I have only illustrated endophoric references.
他用一只手操着方向盘，不一会儿就成了个雪人，脸色发紫，眼睛又红又肿，泪水一道道流下来，在腮边结成了冰。（唐栋《兵车行》123页）

He used one of his hands to operate the steering wheel and quickly became a snowman, his face turned purple, his eyes red and swollen, shedding two continuous lines of teardrops that soon froze on his cheeks. (Tang Dong, The military vehicle)

还说我的文笔很好，我发表在第一期杂志上的《×××》他看了，'我挺有感触的。还成，写得不错。' '是吗？谢谢，不过那是另外一个女孩写的，我那篇在《×××》的右边。'（春树《北京娃娃》155页）

He also told me that my literary style was very good and that he had read 'xxx' which I had published in the first issue of the magazine. 'I was moved by it, really, it wasn't bad at all'. 'Really? Thanks, but that was written by another girl, my piece was to the right of it'. (Chun Sue, Beijing doll)

'那叫小丁花', 他更正她，给她采了几枝。[高行健《给我老爷买鱼竿》78页]

'Na jiao xiaodinghua', ta gengzheng ta, gei ta caile jizhi. (Gao Xingjian, Gei wo laoye mai yugan)
'That's called violet', he corrected her, picking some stems up for her. (Gao Xingjian, A fishing rod for my grandfather)

In the first example, the measure word phrase 一道道 (yi daodao) is postponed to the head noun it is referring to anaphorically; the usual order is the other way round. 道 (dao) means 'way' or 'path' and here it is used metaphorically to describe the teardrops. Its reduplication in the pattern '一AA' introduces the idea of 'numerous', 'continuous' or 'every'. In example (2), the reference item 篇 (pian) is pointing to the preceding text and although the information is there it is not verbally explicit. We know that 那篇 is related to 《×××》, the title of some kind of publishable written text or composition such as 文章 (wenzhang) 'article' or 论文 (lunwen) 'dissertation'. Example (3) is also a case of anaphoric reference where 几枝 (jizhi) 'some stems' refers to 小丁花 (xiaodinghua) 'violet'. It is worth noting that the cohesion lies in the relationship that is set up between the two items, independently of their nature.

3.2. Substitution

Halliday and Hasan (1976:88) understand substitution as the 'replacement of one item by another'. They later add: 'A substitute is a sort of counter which is used in place of the repetition of a particular item' (Halliday and Hasan 1976:89). The difference between reference and substitution is that in the case of substitution, it is implied that the presupposed item figures in the text, whilst this is not necessarily the case for reference.

(4)

'你们城市里一天吃几顿饭?'香雪也紧跟在姑娘们后边小声问了一句。〔铁凝《哦，香雪》22页〕
'Nimen chengshi li yitian chi ji dun fan?' Xiangxue ye jingen zai guniangmen houbian xiaosheng wenle yiju. (Tie Ning, Oh, Xiangxue) 'How many meals do you have a day in your town?', asked Xiangxue in a low voice also from behind the girls' heels. (Tie Ning, Oh, Xiangxue)

(5) '这酒像马尿。'她喝了一口大声说。〔扎西达娃《系在皮绳扣上的魂》235页〕

'This wine tastes like horse piss,' she said in a loud voice after having taken a sip. (Zhaxi Dawa, The spirit tied up to the leather rein)

(6) 你什么都记不得了那你看看碗里的饭，颗颗粒粒都是农民种出来的。（柯如《溪流长》）

'If you don't remember a thing then have a look at your bowl's rice. Each and every single grain has been grown by the peasants. (Ke Ru, The brook's master)

For substitution to take place, in principle the substitute item must have the same structural function as that which it substitutes, since substitution is a relationship in the wording rather than in the meaning. Example (4) can be considered a case of clausal substitution, where 一句 (yiju) 'a sentence' presupposes the entire preceding question, i.e. the measure word phrase has the same grammatical function (direct object) as the substituted item. In (5), the measure word phrase 一口 (yikou) 'a mouth(ful)' or 'a sip' is a partitive replacing 酒 (jiu) 'wine'. The noun 饭 (fan) 'rice' in (6) is replaced by the reduplicated form of two of
the possible measure words it can co-occur with, 颗 (ke) and 粒 (li), both meaning 'grain' here. This structure is used for emphasis and means 'each and every single grain', thus making a mass noun countable but, finally, referring to the same reality, the rice in the bowl. In all these different syntactic settings, it is grammatically necessary to have an item occupying the position of the substituted noun.

3.3. Ellipsis

According to Halliday and Hasan (1976:88), ellipsis is the 'omission of an item', something 'left unsaid … but understood nevertheless' (Halliday and Hasan 1976:142). Ellipsis presupposes some preceding element, which then serves as the source of the missing information.

The difference between substitution and ellipsis is that in the former a substitution counter occurs in the slot … whereas in the latter the slot is empty – there has been substitution by zero. (Halliday and Hasan 1976:145)

As we will see, the substitution of a head noun by a measure word phrase is also a common recourse of discourse cohesion in Chinese. We mainly find two types of ellipsis related to nominal measure word use in Chinese, namely, the omission of the measure word and the omission of the noun. What is often said of measure word ellipsis is that it is typical of more informal language and, therefore, common in oral registers. However, we often find this phenomenon in different kinds of written texts; therefore, such theoretical explanations, in addition to being scarce, are contradicted by actual use. For whatever reason, specialised studies do not give satisfactory explanations of this phenomenon, which I believe to be a symptom of language economy that the author can employ when s/he makes use of other discourse cohesion resources and when this does not affect communication. Nevertheless, I believe more studies of measure word ellipsis, both in
written and oral registers, are necessary to provide a more complete and comprehensive picture of the phenomenon. As regards noun ellipsis, textbooks and grammar books do point out that we can omit the noun providing we keep the remaining noun phrase elements, i.e. a determiner plus a measure word (measure word phrase). So, the presence of the measure word means that we do not have to repeat the noun which has either been mentioned previously or is inferred by the context. This recourse is not only the result of required linguistic economy, but also of the need to use a more succinct style or to produce a more refined language (Guo 1987; Zhang 1995).

Although both (measure word ellipsis and noun ellipsis) are interesting linguistic phenomena that need further research from a pragmatic approach, I believe that measure word omission does not play a part in text cohesion; rather, when it is omitted other elements have to take on this role. Therefore, in this paper I shall focus only on the second kind of ellipsis.

(7) 《不一会儿功夫，又上来了两盘点心。马伯乐一盘，王老先生一盘。》 〔萧红《马伯乐》〕

Bu yihuir gongfu, you shanglaile liang ban dianxin. Ma Bole yiban, Wang Lao xiansheng yiban. (Xiao Hong, Ma Bole)

After a moment, they brought two trays of light refreshments. Ma Bole was carrying one and Mr. Wang Lao the other. (Xiao Hong, Ma Bole)

(8) 当时，你们家的事你可一句也未谈起过。〔高行健《给我老爷买鱼竿》109页〕

Dangshi, nimen jia de shi ni ke yiju ye wei tanqiguo. (Gao Xingjian, Gei wo laoye mai yugan)

At that time, you did not mention a word about your family affairs. (Gao Xingjian, A fishing rod for my grandfather)
In the previous examples, the element omitted within the noun phrase is always the head noun, and it is precisely through the measure word (and its modifier) that textual cohesion is maintained. In the second sentence of example (7), the head noun 点心 (dianxin) 'refreshments' is omitted and only the measure word phrase 一盘 (yiban) 'a tray', which stands for the entire noun phrase 一盘点心 (yi ban dianxin) 'a tray of refreshments', is left. 一句 (yiju) 'one sentence' in (8) replaces the head noun as an object of the verb 谈 (tan) 'talk' that in Chinese, in absence of a more specific object, by default is 话 (hua) 'words'. Therefore, the complete sentence in Chinese would be 一句话 (yi ju hua) 'a sentence of words'. The difference between example (4) and this one is that here, 一句 (yiju) does not substitute a previously mentioned noun, but rather replaces an elided noun phrase that has to be understood from the context; whereas in example (4), 一句 (yiju) replaces an entire sentence. In (9), the context tells us that the character is talking about writing, so,
despite the fact that the head noun after 笔 (bǐ) 'brush' is missing, we know it must be 字 (zì) 'Chinese character'. Finally, the use of 套 (tao) 'set' without being followed by a noun as in (10), can be considered a set phrase that usually refers to behaviours or attitudes the speaker disapproves of in the other person, so the missing noun should be interpreted as 'skill', 'trick' or 'strategy'.

In all these cases, something that is structurally necessary for the noun phrase to be complete is ellipted but, either because of the anaphoric proximity of the presupposed item or because of the strong association we make between the existing measure word and the ellipted noun (collocation), we can retrieve the missing information we need to interpret the sentence. However, the fact that sometimes it is the measure word which is omitted can lead one to believe that this is not an indispensable element. Put another way, it is not the only text cohesion element in the discourse; it finds itself in a kind of alternating relationship with respect to the noun. This, in turn, suggests that in certain contexts the measure word can assume a certain pronominal function, and in fact some authors, such as Denny (1976:131) and Guo (1987:22), argue that pronominalization is one of the main functions of measure words.

Finally, it should be noted that all these cases, including the examples given for substitution, could be instances of reference if analysed from a semantic perspective, since when we substitute (or elide) an item, we need a referent to retrieve missing information or to complete it.

3.4. Lexical cohesion

Lexical cohesion is achieved by choosing some specific items related to others that have appeared earlier, something which is possible because of the existing connections between words. Halliday and Hasan (1976) distinguish two main types of lexical cohesion: reiteration (instantiated through repetition, synonymy or near-synonymy, superordination, or a
general word), and collocation. In the following three subsections, I shall illustrate some of these recourses regarding the use of measure words.

3.4.1. Repetition of words

Repetition is an expressive recourse that serves to highlight a characteristic, emphasise a feeling or add an exaggerated tone to the text. I have observed that this particular recourse is used more in Chinese than in other languages, such as Catalan or English, since in Catalan and English, repetition usually sounds stylistically tedious, and the tendency is to resort to using relative pronouns, which do not exist in Chinese.

(11) ……又使他看见了另一张少女的面庞。这也是一张美丽
的面庞。 (巴金《家》12页)
... you shi ta kanjianle ling yi zhang shaonü de mianpang. Zhe ye shi yi
zhang meili de mianpang. (Ba Jin, Jia)
... it made him see again the face of another girl, which was
also a very pretty face. (Ba Jin, The Family)

(12) 在这一刻琴和觉民在他的眼前的确表演了这一幕爱情戏
。这幕戏好像 (……)。 [巴金《家》290页]
Zai zhe yi ke Qin he Juemin zai ta de yan qian dique biaoyanle zhe yi mu
aiqing xi. Zhe mu xi baoxiang... (Ba Jin, Jia)
At that moment, in his eyes it was as though Qin and Juemin
were actually acting out this love story, which seemed .... (Ba
Jin, The Family)
In example (11), 一张面庞 (yi zhang mianpang) 'a face' is repeated twice; each time the head noun is preceded by a different modifier. In this case, the repetition in the English translation similarly maintains the effect of the original. In (12), the noun phrase 这一幕戏 (zhe yi mu xi) 'this play' appears twice, the first time the (head noun) is modified by the word 爱情 (aiqing) 'love', while the second time, it appears without modifiers. In (13, the noun phrase 一片 (yipian) 'a stretch' or 'an extension' is repeated up to three times to transmit the feeling that the character is reflecting on the word 黑暗 (bei'an) 'darkness'. In the last example, (14), the repetition in Chinese is an option that gives a certain
lyrical sonority and rhythm to the text the girl is reciting, which one can try to reproduce when translating by means of the same repetitive rhetorical device, or by looking for another technique that is also acceptable in the target language (such as vowel lengthening). In the English translation of these examples, I have resorted to repetition, but also to relative pronouns in order to find an equivalent cohesive effect.

3.4.2. Synonymy

Synonymy as a lexical cohesion device needs to be understood in the widest sense to include variants such as hyponymy, hyperonymy and antonymy. The substitution of a measure word for a synonym or quasi-synonym to avoid repetition and contribute to a more elegant style is also a common recourse in creating discourse cohesion. It goes without saying that these changes in the measure word cannot always be transferred word-for-word in a translation, but their effect and function can be transferred to the target text by means of cohesion devices or by so-called compensation processes.

(15) 
……金丝眼镜下面的一对眼睛睁得圆圆的。(……)只是那双眼睛(……)。(巴金《家》44页)
... jinsi yanjing xiamian de yi dui yanjing zheng de yuanyuan de. ...zhishi na shuang yanjing ... (Ba Jin, Jia)
...the pair of eyes under those golden glasses were wide open.
... but those eyes ... (Ba Jin, The Family)

(16) 
喜老头正往这边走，他的后边跟一群人，有狮子院的福奶奶、志泉媳妇、还有马长山这一伙小组长。(浩然《艳阳天》)
Old Xi was just walking in this direction, bringing in his wake a bunch of people who were following him: there was madam Fu from the Lion's Courtyard, Zhiquan's wife and what's more the leader of the little group, Ma Changshan. (Hao Ran, A nice spring day)

(17) He took out a cigarette from his pocket and put it in Liu Sijia's mouth, leaned forward and lit a match to light Liu Sijia's cigarette. Soon after his lips also held a cigarette. (Jiang Zilong, Red, orange, yellow, green, black, blue and purple)

(18) From that moment on, Mei, as a living person, had gone forever; only one coffin remained .... there was one small sepulchre which held as many as three or four coffins at the same time .... (Ba Jin, The Family)
In example (15), the head noun 眼睛 (yanjing) 'eyes' collocates with 对 (duì) and 双 (shuāng), both measure words meaning 'pair', with no relevant cognitive difference between them in this particular example. In example (16), we find 群 (qún) and 伙 (huǒ), both neutral collective measure words referring to groups of people. The example in (17) is very similar to the previous ones in that the measure word used in the second place, 支 (zhī) has exactly the same cognitive referent as 根 (gēn), i.e. the change in the measure word does not denote any change in meaning nor of the writer's point of view. As regards example (18), although the two measure words that co-occur with 棺材 (guāncái) 'coffin', 具 (jù) and 副 (fù), represent quite different categories, in this case we have to consider them near-synonyms because from the context we can only infer they are referring to basically the same reality.

A final consideration we need to bear in mind that although all these pairs of measure words are not synonyms in the strictest sense, but near-synonyms, they are interchangeable in all these contexts.

3.4.3. Collocation

Collocation is the tendency for two words to appear together in discourse. This juxtaposition of one word with another is bound by their relationship and internal rules, not only syntactical but also semantic content restrictions and logical categories. Marco (2002:112) argues, in the following terms, that the use of one particular lexical element activates the possibility of certain lexical elements to appear in the same text while making the appearance of others impossible: 'Word collocation is closely linked to the context and creates certain expectations in the text receiver which are later fulfilled or not'.

In my view, measure word and noun collocation are not as mechanical or restricted as conventional descriptions claim, in the sense that nouns can co-occur with a range of measure words and that each choice constitutes a clear indication of the user's intentions, point of
view or what he or she wants to say and, therefore, the measure word chosen is imbued with meaning. Nevertheless, the possible combinations are not unlimited and, in fact, in everyday speech and in non-literary texts there is a high tendency of nouns to co-occur with certain measure words. This, together with contextual clues, triggers a series of possible co-occurring instances that function as prototypes of the category when we hear or read a certain measure word (usually preceding the noun). So, in this sense, the head noun is to some extent predictable. Let's look at some examples that support this claim:

(19) 你家院里有一棵小树，树干光溜溜，早瞧惯了［……］。
（冯骥才《高女人和他的矮丈夫》29页）

Ni jia yuan li you ke xiao shu, shugan guang liuliu, zao qiaoguanle ….
(Feng Jicai, Gao nüren he ta de ai zhangfu)

In your courtyard there was a small tree with a bare trunk; I had got used to it long ago …. (Feng Jicai, The tall woman and her short husband)

(20) 我想起我们通信的时光，那首《邀游》（……）。
（春树《北京娃娃》140页）

Wo xiangqi women tongxin de shiguang, na shou 'Yao you' .... (Chun Sue, Beijing wawa)

I recalled the time we used to exchange correspondence and that 'Invitation to swim' …. (Chun Sue, Beijing doll)

(21) 他打量了一下我和方方，便热心地指点给我看，从哪里到哪里，左手往东，见到的那幢红砖砌的三层楼房（……）。〔高行健《给我老爷买鱼竿》147页〕
In the examples above, as soon as we hear or read the measure word, it is possible for us to guess the category that will come after it. For example, in (19) it reads 'in your courtyard there was...' and as soon as we read 棵 (ke), used mainly for trees, we can deduce that the following noun will be either the generic word 'tree' or the term for a specific kind of tree. With the help of typography, we know that 邀游 (yaoyou) 'invitation to swim' in (20) is the proper noun of a written text and thanks to the measure word it co-occurs with, 首 (shou), we can deduce it is a shorter text (the length of a song or a poem), since we would use another measure word for a longer one. Since we cannot tell exactly from the original context whether it is a song or a poem, we can either leave it as ambiguous or add the word 'verses' or 'lines' in the English version. In (21), as soon as we read the word 幢 (zhuang), we know that what the characters in the story are going to see is some kind of building.

We have to take into account collocation with the rest of the vocabulary; in other words, cohesiveness does not lie only in the co-occurrence of measure words and nouns, but also in the relationship that exists between the other elements in the text.

We can see from the examples in section 3 that these cohesion devices are intimately interrelated, and it is difficult, if not impossible, to make a clear-cut division between them. As Halliday and Hasan (1976:88) point out: 'There are many instances of cohesive forms which lie on the borderline between two types and could be interpreted as one or the other.' This should not surprise us since we are dealing with linguistic phenomena which are both semantic (reference) and
grammatical (substitution, including ellipsis); consequently, semantic criteria may suggest one interpretation while grammatical criteria suggest another. For example, the cases of reference in examples (2) and (3) could also be considered examples of ellipsis, if we were to examine them from a grammatical perspective, while the examples of substitution (4), (5) and (6) could also be taken as examples of reference, if we were to apply semantic criteria.

4. Measure words as disambiguation devices

We say there is ambiguity when the referents are not clear from the context. Collocation is, therefore, also important from the perspective of its ability to clarify ambiguities in the text. Although the disambiguation function of measure words, too, can be considered a discourse cohesion mechanism, in the case of Chinese, this aspect merits special attention, among other reasons because of the language's limited phonetic range. It is precisely because of their importance in the construction of discourse that I believe measure words should be dealt with separately.

The classifying function of measure words serves to highlight the different aspects of meaning a noun can have. In contrast, the purpose of what we could call the disambiguation function is to select one of the different meanings of a noun or possible interpretations of an utterance.

Chinese has many homophones; in written Chinese, these do not represent a problem, as they are written differently. However, in spoken Chinese, they are easily confused and measure words can help us to clarify ambiguities that may arise. That is, they perform a disambiguating function, since they tell us which semantic field the noun belongs to, which means that we can rule out remaining possibilities, since one option is activated to the detriment of the others. Forrest (1973:173) pointed out that one of the hypotheses that could explain the historical appearance of measure words concerned
their ability to help distinguish between homophones, and this original motive may well have been maintained up to the present day.

Therefore, we can state that the disambiguation function of measure words consists of establishing the cognitive domain of the concept that follows, particularly in the case of polysemous Chinese characters and of homophone words. Below, we see some examples in which the measure words play an important role in delimiting the meaning of the noun and, consequently, in determining how the discourse should be interpreted. As to homophones, which have the same pronunciation but different written forms, ambiguities may potentially arise only in oral contexts.¹⁰

(22)

Na ge yong qiang zhizhe ta de naodai de ren ba qiang you dingzaile ta de jiliang shang, yi ge liu le yi pie huzi de shibing shanglai soule yixia ta de shen, .... (Zhang Sheng, Baiyun qianli wanli)

The person who had pointed to his head with a gun put it against his back again. A soldier with a moustache approached him to carry out a body search .... (Zhang Sheng, White clouds)

(23)

Zai zhangpeng li you yi ge zhongnian nanren zuozai mutai qian kan shu. Zhongnian nanren wubei duan fa, liu you yi tiao huzi. (Xing, Shenzi)

Inside the tent there was a middle aged man sitting in front of the wooden platform reading. He had jet black short hair and a beard. (Xing, The god's son)
(24) 后来，就看见了我老爷，蹲坐在一张小板凳上。
…… houlai, jiu kanjianle wo laoye, cunzuozai yi zhang xiao bandeng shang. (Gao Xingjian, Gei wo laoye mai yugan)
… afterwards, I saw my grandfather, squatting on his heels on a small wooden stool. (Gao Xingjian, A fishing rod for my grandfather)

(25) '你看病吗？'
我诧异地打量着他，挪过一条板凳。
'Ni kan bing ma?', wo chayi de daliangzhe ta, nuoguo yi tiao bandeng. (Tang Dong, Bingche xing)
'Have you come to see the doctor?' I examined him with surprise and approached a bench. (Tang Dong, Military vehicle)

(26) 杜鹃，我是一只杜鹃。我是一只曾经拥有美丽歌喉的杜鹃。
Dujuan, wo shi yi zhi dujuan. Wo shi yi zhi cenjing yongyou meili gehou de dujuan. (Zhao Hongfeng, Wo shi yi zhi dujuan)
Cuckoo, I am a cuckoo. I am a cuckoo that once had a lovely singing voice. (Zhao Hongfeng, I am a cuckoo)

(27) 我们开始谈论生命，以及种种的困惑，譬如永恒，爱情，与及轮回之类，一朵杜鹃悄然地飞坠，
women kaishi tanlun shengming, yiji zhongzhong de kunhuo, piru yongben, aiqing, yuji lunhui zhilei, yi duo dujuan qiaoran de feizhi, (...)。 (Zhang Cuo, Tanzhi)
The word 胡子 (huzi) generally refers to the hair on a man's face and we use 撇 (pie) (22) or 条 (tiao) (23) if we want to distinguish between a moustache or a beard, respectively: since 撇 (pie) is a Chinese calligraphy term consisting of a brush stroke which curves downwards to the left in a line running from thick to thin (丿); the classifier 条 (tiao), in contrast, is used for long and thin things that are relatively flexible. In (24) and (25), the measure word highlights the shape of the object 凳子 (dengzi), which in both cases is used for sitting on, but which has two different names in English. In (24), the use of 张 (zhang) emphasises the flat surface for sitting on (the surface which comes into contact with the body), whilst in (25), it is the length aspect (emphasised with 条 (tiao)), which draws one's attention more to the shape of the object than to its function. Since in Chinese, 杜鹃 (dujuan) can refer both to animals and to plants, in the previous pairs of examples there would be ambiguity if we did not use a measure word. In fact, the first time the word 杜鹃 (dujuan) appears in example (26) it is ambiguous, because it is not preceded by any measure word, but in English we need to choose one option or another and so this possible deliberate ambiguity is lost. The measure word 只 (zhi) in (26) tells us that the head noun represents an animal; in contrast, in example (27), the measure word 朵 (duo) tells us that the noun that follows belongs to the category of flowers, so 杜鹃 (dujuan) must be translated either as 'cuckoo' or 'azalea' flower accordingly.
5. Conclusions

Grammar books and textbooks tend to tackle the topic of measure words from a prescriptive approach, thus limiting learning to the word level only, which cannot explain or, at best, can only offer an incomplete and inadequate explanation of how measure words are used in Chinese in practice. This is why students of Chinese that have obtained a good command of the language in terms of their knowledge of established grammar rules soon become aware of the limitations of their knowledge because usage differs substantially from what they have learned in the classroom. This is particularly pertinent for those students who wish to work professionally as translators or actively use Chinese. From my perspective, part of the problem lies in the fact that the teaching of this linguistic phenomenon peculiar to Chinese (and other classifying languages) mainly focuses on the word or phrase level. In this article, I have attempted to show how a pragmatic approach allows us to tackle this issue at the level of the text and context, where we can analyse the role of measure words in the construction of discourse.

According to studies carried out to date, there appears to be evidence that there is a relationship between how measure words are used and the following aspects: a) whether the noun is mentioned for the first time or whether it is already known by the interlocutors; b) whether this noun is important from a pragmatic perspective or not; c) the type of reference (definite or indefinite); d) the re-occurrence of the theme within the discourse; and e) the situation context (if the entities are present or not, user profile, etc.). All these references to the use of measure words in discourse appear to be important, but most are limited to the use or non-use of measure words in certain contexts, with brief explanations about whether a more general or more specific measure word is employed. I believe that these references to how measure words are used, open up an interesting line of research that should be studied in greater depth. In this article, I have attempted to
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deal with the analysis of their role in the construction of discourse, and in particular in text cohesion.

In order to do so, I have made use of Halliday and Hasan's (1976) observations concerning cohesion mechanisms – reference, substitution, ellipsis and lexical cohesion – as a guiding line and I have illustrated them with examples taken from literary works. Since these functions are not static, but rather overlap and interrelate while developing, they provide a more holistic and accurate idea about what Chinese measure words really are and do.

We have seen that measure words, in their different possible instantiations participate in referencing processes. We have also seen how the substitution of a noun phrase by a measure word phrase is one of the linguistic options within the grasp of language users to avoid repetition and maintain text cohesion. When faced with omitting the head noun, textual cohesion is maintained due to the presence of the accompanying measure word phrase. As regards lexical cohesion mechanisms, we find them repeated to give emphasis, as well as alternating with synonymous measure words to provide variety. I have also shown that when measure words collocate with nouns in conventional ways, they allow us to guess the possible noun that follows because they provide us with advance knowledge of part of their meaning. Finally, I have added a section dedicated to their role of clarifying ambiguity, that is to say, to what degree certain collocations delimit or project the meaning of the noun (in the case of polysemy) towards one interpretation or another. The fact that these examples can fall into two different cohesion categories is not something that should concern us because, as I stated earlier, these categories are tools to facilitate analysis and classification; in order for them to be useful, we have to be able to use them flexibly.

To summarize, the use of measure words and their collocation with nouns is often presented as a typically grammatical phenomenon, whereas in real language use, they are often determined by contextual or situational factors. The interpretation and subsequent translation of measure words cannot be done in isolation; rather we must take into
account the contextual circumstances in which they appear: their importance with respect to other words, to what degree they are new items in the collocation, and so on. The fact that changes in a measure word cannot always be transferred in word-for-word translation should not cause concern, because we have to realize that each language has its own cohesion mechanisms and that good translation practice is contextual, not word-for-word. Therefore, we can only achieve a complete interpretation and accurate translation using a pragmatic approach.

If we ignore pragmatics, then many relevant aspects (such as the non-conventional uses of some measure words or apparently non-grammatical constructions) remain unexplained, or their explanation is inadequate. Grammar and pragmatics have to complement each other: there has to be collaboration between both approaches, so as to offer a more accurate view of the complexity of language. It is therefore necessary to take into account this new perspective in linguistic analysis and language teaching.

I hope this article provides a small contribution to encouraging the opening up of a new line of research that would explain many phenomena related to the use of measure words in an area where there is a gap between theory and practice (such as the phenomenon of 'geization', the omission of measure words, and others), and where more study is still needed.

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Notes

1. According to the *Yingyong hanyu cidian* [Chinese usage dictionary] (2000), a measure word expresses the unit of people, things or actions and it is usually used in combination with a numeral or a demonstrative.

2. In prescriptive grammar students are told that noun $x$ must collocate with measure word $y$. For example, the authors of *Integrated Chinese*, apparently the most widely used Chinese textbook in the USA, state: 'The association of a measure word with a noun is not random but fixed according to the general meaning of the noun' (Liu and Yao 1997:43).

3. For example, utterances such as 三个书 (*san ge shu*) or 两个水 (*liang ge shui*) can be heard from native speakers although they are labeled as wrong in the language instruction classroom.

4. With non-standard collocations, I refer to those collocations which, in spite of not being conventional (i.e. are not taught as possible or grammatically correct), are accepted by readers because they have been created on the spot by prestigious writers. The non-specific use of measure words (or replacing them by $ge$) is referred to as 'geization'.

5. Grounded space limitations, I have opted for reducing the contexts to a practical minimum. I have drawn a box around the key discourse elements in Chinese and underlined the pinyin original and the equivalent English translation (when there is one) to facilitate reading.

6. This example has been borrowed from He, Jie 2001. *Xiandai hanyu liangci yanjiu*. Beijing: Minzu chubanshe, p. 60.

7. 套 (*tao*) implies some sort of conceptual grouping, i.e. there is a common or shared goal that gives cohesion to a series of discrete and different objects that work as a functional unit.

8. This example has been borrowed from: Zhang, Xiangqun 1995. *Liangci xiuci shenmeilun*. Xi'an: Shaanxi renming jiaoyu chubanshe, p. 96.

9. 'La collocació de mots està íntimament lligada al context i crea unes expectatives en el receptor del text que després es poden veure complides o no'.

10. Because of the scarcity of available data, in the present paper I have opted to include only examples of ambiguity due to polysemy.
References


Works cited from which examples have been used