

The Count-Mass Distinction of Abstract Nouns in Mandarin Chinese

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1 Concrete nouns

The issue of whether nouns in Mandarin Chinese can be distinguished into count and mass nouns has been debated in recent literature. Unlike English, Mandarin Chinese is a language where nouns are not obviously count nouns or mass nouns. In fact, syntactically nouns in Mandarin are similar to mass nouns in English, as they cannot combine directly with numerals, but must combine with classifiers; they do not have singular/plural morphology¹, and the same quantifier occurs with nouns that denote individuals and nouns that denote non-individuals. To date, there have been two views on the status of nouns in Chinese. In the first view, advocated by Chierchia (1998) and Krifka (1995), all of the nouns in Chinese are mass nouns. In this view, bare nouns denote a semi-lattice of sets of individuals and sets of pluralities (according to Chierchia), or kinds (according to Krifka), but not individuals. The second view is proposed by Cheng and Sybesma (1998, 1999), who argue that Mandarin Chinese does have a count-mass distinction. The distinction is encoded on classifiers, which perform a task similar to count syntax in English. Count nouns occur with count (individual) classifiers, while mass nouns occur with mass classifiers (measure words). In a recent study, Liu (to appear) argues for a third view: The count mass distinction in Mandarin Chinese does exist, but it cannot be made solely on the basis of the classifier or measure word that accompanies a noun. Rather, we need to resort to quantification in order to decide the status of a noun.

Whether a noun takes an individual classifier or a measure word is not a reliable indicator of the countability of nouns because the distinction between the two types of words is not always clear-cut (Tai and Wang 1990). For example, *kuai* 'chunk' occurs with nouns that refer to chunky things such as rocks, e.g. *yikuai shitou* 'a rock', and it also occurs with *rou* 'pork', e.g. *yi kuai rou* 'a piece of pork'. If *kuai* is considered a classifier, it would mean that *rou* 'pork' is a count noun, which does not seem to be supported. On the other hand, if *kuai* is a classifier in *yikuai shitou* 'a rock', but a measure word in *yi kuai rou* 'a piece of pork', it would mean that *kuai* is sometimes a classifier and sometimes a measure word. This indeterminacy shows that ability of a noun to take *kuai* does not necessarily tell us whether it is a count noun or a mass noun.

To remedy the situation, Liu (to appear) adopts an idea, suggested in a number of studies (Gordon 1985, Bloom 1999, Barner and Snedeker 2005), that a good tool with which to explore the count-mass issue is quantification. In particular, how quantity is interpreted when nouns are quantified offers clues to their count-mass status. Besides the ability to take classifiers, she proposes two more tests as diagnostics, including the

¹ The suffix *-men* has sometimes been considered a plural marker (e.g. Li and Thompson 1981, A. Li 1999). However, Iljic (1994) argues that *-men* is not a plural marker, since it not only has a limited distribution, it also has a narrow interpretation, being definite and discourse-bound.

The last two classifiers, *chang* ‘occasion’ and *ci* ‘frequency’ are event classifiers. They are included here as individual classifiers because they individuate events. On the other hand, words that denote kinds, e.g. *zhong* in *yi zhong jingshen* ‘a kind of spirit’, are measure words, not (individual) classifiers.

A more important difference between the concrete nouns and abstract nouns lies in how classifiers accompany nouns. With concrete nouns, a classifier occurs with the numeral *yi* ‘one’ as well as a demonstrative such as *zhe* ‘this’, e.g. *yi liang che* ‘one car’, *zhe liang che* ‘this car’; however, with abstract nouns, a classifier that occurs with a demonstrative may not occur with the numeral *yi* ‘one’, as illustrated in (3-4):

- (3) a. *zhe ge kuaile* ‘this happiness’
 b. *zhe ge cunzai* ‘this existence’

- (4) a. *?*yi ge kuaile* ‘a happiness’
 b. *?*yi ge cunzai* ‘an existence’

Assuming that *kuaile* ‘happiness’ and *cunzai* ‘existence’ are mass nouns, the contrast between (3) and (4) shows that compatibility between an abstract noun and a classifier may not be a strong enough test, as even *kuaile* ‘happiness’ and *cunzai* ‘existence’ would pass the test. Therefore, to apply the first test, I will include *yi* ‘one’ as well: Does an abstract noun occur with *yi* ‘one’ followed by a classifier, e.g. *yi ge* ‘one-classifier’, *yi ci* ‘one time’, *yi chang* ‘one occasion’? The idea is to see if an abstract noun has the potential to be counted. This test separates abstract nouns into two groups, ones that occur with *yi*-classifier and ones that do not, as illustrated in (5):

- (5) a. Occur with *yi*-classifier
 gongneng ‘function’, *jihui* ‘opportunity’, *cuowu* ‘mistake’, *nuli* ‘effort’,
 guli ‘encouragement’, *renshi* ‘understanding’, *xinxin* ‘confidence’,
 b. Do not occur with *yi*-classifier
 renci ‘kindness’, *xingqing* ‘disposition’, *xie’e* ‘evil’, *naixin* ‘patience’
 xinlao ‘hard work’, *zhongcheng* ‘loyalty’,

The next test is a test of quantity, modifying the nouns in (5) with the quantifier *henduo* ‘a lot’. First we consider what quantity means for abstract nouns. When nouns are concrete, *henduo* N is interpreted in two ways: by number or by volume; when nouns are abstract, two differences from concrete nouns can be observed. First, some of the nouns do not occur with quantifiers, e.g. **henduo renci* ‘a lot of kindness’; secondly, for the nouns that do occur with quantifiers, the resulting phrases may have a number interpretation, but they do not have the volume interpretation, since these nouns do not denote an entity with a volume in the first place. For example, *henduo xinxin* ‘a lot of confidence’ refers to a high degree of confidence; similarly, *henduo shijian* ‘some time’ refers to a large amount of time. Thus abstract nouns can be measured in a variety of ways, including number, degree, time, distance, frequency, etc. When an event denoting noun is measured by frequency, a frequency classifier is required, e.g. *ji ci baifang* ‘a few visits’, but not **henduo baifang* ‘many visits. Therefore, in the test I include an optional classifier following *henduo* to accommodate event-denoting nouns. The test is to find out whether a noun can be quantified by *henduo* or *henduo*-classifier, and in the former case, if it is interpreted by number. A ‘yes’ answer means the resulting phrase is interpreted by number or can be modified by *henduo*-classifier, which itself is also interpreted by number (due to the occurrence of the classifier); and a ‘no’ answer means that the

resulting phrase cannot be so quantified or is not measured by number. The results of both the *yi*-classifier test and the *henduo*-(classifier) test are given in (6):

(6)	<u><i>yi</i>-classifier</u>	<u><i>henduo</i> (classifier)</u>	
(a) <i>gongneng</i> 'function'	yes	yes	count
<i>jihui</i> 'opportunity'	yes	yes	
<i>cuowu</i> 'mistake'	yes	yes	
(b) <i>nuli</i> 'effort'	yes	yes/no	count or mass
<i>guli</i> 'encouragement'	yes	yes/no	
(c) <i>xinxin</i> 'confidence'	yes	no	mass
<i>renshi</i> 'understanding'	yes	no	
(d) <i>renci</i> 'kindness'	no	no	mass
<i>xingqing</i> 'disposition'	no	no	

The data in (6) shows that abstract nouns are divided into four groups on the basis of the two tests: (a) nouns that take *yi*-classifier and are interpreted by number when quantified; (b) nouns that take *yi*-classifier and may or may not be interpreted by number; (c) nouns that take *yi*-classifier but are not interpreted by number when quantified; and (d) nouns that neither take *yi*-classifier nor are interpreted by number when quantified. I will take nouns in the (a) group as count nouns, and those in the (c) and (d) groups as mass nouns; the former can be counted while the latter cannot. What about nouns in the (b) group, including *nuli* 'effort' and *guli* 'encouragement'? They can be quantified on the event reading, taking the frequency classifier *ci*, but they cannot be quantified on the result reading. I will take these nouns as either count or mass, depending on their interpretation.

The results demonstrate that the occurrence of a classifier with an abstract noun does not necessarily indicate the latter is a count noun. This is the same conclusion that is reached with concrete nouns. A classifier, even when modified by *yi* 'one', does not always individuate the noun it occurs with. This of course does not mean that classifiers do not in general individuate; rather, it means that classifiers also serve other functions. W. Li (2000) proposes that numeral-classifiers, in particular *yi*-classifier, in Chinese serve a discourse function of foregrounding the NPs they occur with, although her data mainly comes from concrete nouns. Biq (2004) suggests that in on-line production *yi ge* N 'one-classifier N', where the noun is nominalized, e.g. *zuo yi ge fenbie* 'to make a distinction', is often preferred over the more concise *fenbie* 'to distinguish', because the former allows the speaker more time to express what s/he wants to say. Thus in spontaneous speech *yi ge* N may serve a processing function. Further work may show that *yi ge* N (abstract) also has discourse functions similar to what W. Li (2000) finds with concrete nouns.

If classifiers by themselves or *yi*-classifier are not markers of count nouns, the question then arises whether there are syntactic or morphological features that mark count and mass nouns. Liu (to appear) says that with concrete nouns count and mass nouns are partially encoded syntactically. The inability to be modified by the quantifier *yidian* 'some' points to concrete nouns, and the inability to take a classifier points to mass nouns. The latter property also applies to abstract nouns, as shown in (6). In addition, the property in (7) distinguishes count from mass in abstract nouns:

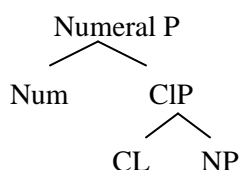
(7) Abstract count nouns permit modification by quantifiers with a number that is higher than one, followed by a classifier; abstract mass nouns do not permit such modification.

- (8) a. *san ge gongneng* ‘three functions’
 b. *liang ci jihui* ‘two opportunities’
 c. *si ge cuowu* ‘four mistakes’
- (9) a. **san ge xinxin* ‘three confidences’
 b. **liang ge renshi* ‘two understandings’
 c. **liang ge renci* ‘two kindness’
 d. **san ge xingqing* ‘three dispositions’
- (10) a. ?*san zhong xinxin* ‘three kinds of confidence’
 b. *liang zhong renshi* ‘two kinds of understanding’
 c. *liang zhong renci* ‘two kinds of kindness’
 d. *san zhong xingqing* ‘three kinds of disposition’
- (11) a. **ji ge nuli* ‘a few efforts’
 b. **duo ge guli* ‘many encouragements’
 c. *ji ci nuli* ‘a few times of effort’
 d. *duo ci guli* ‘many times of encouragement’

(8) demonstrates that nouns of the (a) group in (6) can indeed be modified with a quantifier with a number higher than one, followed by a classifier, while (9) shows that nouns in the (c) and (d) groups cannot be so modified. (10) shows that at least some of the mass nouns can be modified by a quantifier, followed by a measure word, and (11) shows that the two words in the (b) group, the deverbal nouns *nuli* ‘effort’ and *guli* ‘encouragement’, can be modified in the event reading, but not in the result reading.

If (7) is on the right track, it suggests that for abstract nouns classifiers indeed play a role in encoding the count-mass distinction; it is just that they cannot perform the job alone, but must combine with a number. To find out if a noun is countable, the number cannot be ‘one’ because some mass nouns can be modified by *yi ge* ‘one-classifier’ even though they cannot be counted, e.g. *you yi ge renshi* ‘to have an understanding’. Thus count and mass nouns may have the same structure, as in (12)²:

(12)



When Num-CL is filled by *san ge* ‘three-classifier’, for example, we have a count noun; when Num-CL is filled by *yi ge* ‘one-classifier’ or *san zhong* ‘three-measure word’, the noun could be count or mass, as illustrated in (13):

- | | |
|---|-------|
| (13)a. <i>yi ge fangfa</i> ‘one method’ | count |
| b. <i>yi ge renshi</i> ‘an understanding’ | mass |
| c. <i>san zhong fangfa</i> ‘three kinds of methods’ | count |
| d. <i>san zhong renshi</i> ‘three kinds of understanding’ | mass |

² The Numeral Phrase corresponds to the Quantity Phrase in Borer’s (2005) framework.

Recall the count-mass status is determined on the basis of two tests: the ability to take *yi*-classifier and whether *henduo* (Classifier) N ‘a lot N’ is interpreted by number. Only when a noun passes both tests is it a count noun. It is therefore not the structure that distinguishes count from mass nouns, but the material that fills the Num and CL nodes that identifies a noun as a count noun³.

In short, in Chinese abstract nouns can be distinguished into count and mass nouns. The distinction is partially encoded on the Numeral Phrase, which goes beyond the classifier itself. Compatibility with a classifier is a necessary condition for count nouns, but it is not a sufficient condition. Classifiers serve a range of functions beyond individuating, and as such they are not reliable indicators of the count-mass status of a noun. Therefore, as in the case of concrete nouns, to find out whether an abstract noun in Mandarin is count or mass, we need to resort to quantification.

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³ This encoding does not work for concrete nouns, however. This is because even when the number is above one, and CL is an individual classifier, the noun could still be a mass noun, e.g. *san kuai rou* ‘three pieces of meat’.

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