The Count-Mass Distinction of Abstract Nouns in Mandarin Chinese

Feng-hsi Liu

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.

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quantifier *henduo* ‘a lot, many/much’ and the quantifier *yidian* ‘some, a little/a few’. The idea is to see whether the two quantifiers are interpreted on the basis of number or volume when they occur with a noun. A number interpretation would indicate a count noun, while a volume interpretation would indicate a mass noun; and if a noun allows both interpretations, it would be a flexible noun, which could function either as a count noun or a mass noun. This results in the following division:

(1)a. Count nouns: *yizi* ‘chair’, *beizi* ‘cup’, *jiaju* ‘furniture’, *yifu* ‘clothes’, *lazhu* ‘candle’
   b. Flexible nouns: *shengzi* ‘rope’, *zhizhang* ‘paper’, *shuiguo* ‘fruit’, *mianbao* ‘bread’
      *doufu* ‘tofu’

One consequence of the analysis is that *rou* ‘pork’ is a mass noun, despite the fact that it occurs with the classifier *kuai*. *Henduo rou* ‘lots of pork’ and *yidian rou* ‘some pork’ both refer to volume, rather than number of pieces.

This analysis, however, only covers concrete nouns. The question then arises whether abstract nouns in Mandarin Chinese can also be distinguished into count nouns and mass nouns, and if so, what the criteria are. Could the analysis proposed for concrete nouns be extended to abstract nouns? These are the issues that I will address in this note. I will show that the count-mass distinction can be made among abstract nouns, and to do so we also need to make use of quantification. As with concrete nouns, classifiers alone are inadequate as a marker of the count-mass distinction, but unlike the case of concrete nouns, it is not because of indeterminacy; rather, it is because of false identification.

2 Abstract nouns

I will take abstract nouns to be nouns that denote what Lyons (1977) refers to as second-order entities and third-order entities. Second-order entities include events, processes and states-of-affairs, while third-order entities include concepts, ideas and propositions. Thus abstract nouns include nouns such as *xingfu* ‘happiness’, *naixin* ‘patience’, *xiangfa* ‘idea’, and deverbal nouns, such as *guli* ‘encouragement’, *liaojie* ‘understanding’. To find out their count-mass status, I will apply two of the three tests that are used on concrete nouns, with some modifications: whether nouns take a classifier with the numeral *yi* ‘one’, and how they are interpreted when quantified by *henduo* ‘a lot’, with or without a classifier. The third test, involving *yidian* ‘some’, is not used because it does not occur with most of the abstract nouns.

One notable difference between concrete nouns and abstract nouns is the number of classifiers that occur with the two types of nouns. There are more than 100 classifiers for concrete nouns (Gao and Malt 2009), while the number of classifiers for abstract nouns is much smaller, including the following:

(2) Some of the classifiers that occur with abstract nouns

<table>
<thead>
<tr>
<th>meaning</th>
<th>nouns it is associated with</th>
</tr>
</thead>
<tbody>
<tr>
<td>ge</td>
<td>general classifier</td>
</tr>
<tr>
<td>dian</td>
<td>point</td>
</tr>
<tr>
<td>men</td>
<td>branch</td>
</tr>
<tr>
<td>xiang</td>
<td>item</td>
</tr>
<tr>
<td>chang</td>
<td>occasion</td>
</tr>
<tr>
<td>ci</td>
<td>frequency</td>
</tr>
<tr>
<td></td>
<td>method, function, contribution</td>
</tr>
<tr>
<td></td>
<td>suggestion, request, criticism,</td>
</tr>
<tr>
<td></td>
<td>knowledge, art</td>
</tr>
<tr>
<td></td>
<td>suggestion, decision, order</td>
</tr>
<tr>
<td></td>
<td>misunderstanding</td>
</tr>
<tr>
<td></td>
<td>opportunity, failure</td>
</tr>
</tbody>
</table>
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
   guli ‘encouragement’, renshi ‘understanding’, xinxin ‘confidence’,

   b. Do not occur with yi-classifier
   ren ci ‘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)  

<table>
<thead>
<tr>
<th>(a)</th>
<th>gongneng ‘function’</th>
<th>yi-classifier</th>
<th>henduo (classifier)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>jihui ‘opportunity’</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>cuowu ‘mistake’</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>(b)</td>
<td>nuli ‘effort’</td>
<td>yes</td>
<td>yes/no</td>
</tr>
<tr>
<td></td>
<td>guli ‘encouragement’</td>
<td>yes</td>
<td>yes/no</td>
</tr>
<tr>
<td>(c)</td>
<td>xinxin ‘confidence’</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>renshi ‘understanding’</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>(d)</td>
<td>renci ‘kindness’</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>xingqing ‘disposition’</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

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)  
```
Numeral P
    Num
    CIP
    CL NP
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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. yi ge fangfa ‘one method’ count
    b. yi ge renshi ‘an understanding’ mass
    c. san zhong fangfa ‘three kinds of methods’ count
    d. san zhong renshi ‘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 noun.

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.

References


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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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