[Yi+N] in Mandarin Putonghua
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1.0 Introduction
Tsai (2002) examines the syntax and semantics of yi, er, san “one, two, three” and suggests that numerals in Mandarin Chinese can have different semantic interpretations in different syntactic environments. This paper focuses on yi in the [yi+N] structure in Mandarin Putonghua, which is not covered in Tsai (2002). This study examines the syntactic distribution of [yi+N] and the semantics of yi in the [yi+N] structure and demonstrates that the semantics of yi in the [yi+N] structure is sensitive to syntactic factors. In addition, the empirical evidence presented in this paper challenges the shared view in literature (e.g., Chao, 1968; Cheng and Sybesma, 1999) that classifiers are obligatory when numerals are combined with nouns in Mandarin Chinese.

This paper consists of five parts. Section one introduces and justifies the research topic. Section two discusses the types of noun phrases (NPs) in Mandarin Chinese. Section three briefly summarizes the diachronic, typological, and syntactic studies of Chinese NPs in literature and points out that it is commonly assumed that classifiers are mandatory in NPs that consist of a numeral and a nominal referent. Section four presents the distribution pattern of [yi+N] and analyzes the meaning of yi in [yi+N]. In the end, I provide a brief conclusion about [yi+N]’s distribution pattern and the interaction between syntactic factors and the interpretation of yi.

2.0 NPs in Mandarin Chinese
There are four types of NPs in Mandarin Chinese defined by their internal structure. They are [Num+CL+N], [CL+N], [Num+N], and [N+Num+CL]. See the examples in (1)-(4). This study focuses on the [Num+N] structure when the numeral is yi ‘one’.

(1)  [Num+CL+N]:
Liang ge pingguo
two CL apple
‘two apples’

(2)  [CL+N]:
Bang wo ge mang xing ma?
help 1SG CL favor ok PAR
‘Could you do me a favor please?’

(3)  [Num+N]
Bang wo yi mang xing ma?
help 1SG one favor ok PAR
‘Could you do me a favor?’

(4)  [N+Num+CL]:
Rou san jin, baicai liang jin.
meat three kilo cabbage two kilo
‘three kilograms of meat and two kilograms of cabbage’

1 Abbreviations used in this paper are: Num = Numeral, N = Noun, NP=Noun phrase, PAR = Particle, ASP=aspect, MOD= modal, DE=Chinese de, CL = Classifier, ASP = Aspect, RET = retroflection, 1/2/3SG = first/second/third person singular, NOM = nominal, COP = copula
3.0 NPs in Mandarin Chinese: A Brief Review

3.1 The diachronic approach

Wang (1958) gives a descriptive analysis of the development of Chinese classifier system from a diachronic linguistic perspective. Based on his analysis of historical documents, Wang suggests that [ge+N] derives from [Num+ge+N] (ge known as the general classifier). In addition, he proposes that cardinality in the [CL+N] structure is implied and it has to be one. He further argues that the explicit use of yi in [yi+CL+N] functions only to emphasize the quantity.

3.2 The typological approach

Studies pursuing the typological line of research often link the obligatory appearance of classifiers in Mandarin NPs to transnumerality, i.e. languages’ property of not requiring compulsory number marking in nouns (e.g. Bisang, 1998; Greenberg, 1990). It has been argued that Mandarin Chinese is a classifier language and the obligatory use of classifiers in NPs is commonly assumed. Greenberg (1990) suggests that classifiers in transnumeral languages function as individualizers, which perform “the same function as singulative derivational affix in languages with the collective/singulative distinction” (Greenberg, 1990; as cited in Tao, 2003, p. 22). Bisang (1998) also expresses a similar view that classifiers in Chinese allow its native speakers to individualize referents.

3.3 The syntactic approach

Chen and Sybesma (1999) examine the distribution and interpretation of bare nouns, [CL+N], and [Num+CL+N] in Mandarin Chinese and Cantonese. They propose the structure in (5) to account for indefinite NPs and the structure in (6) to account for definite NPs.

In summary, previous studies focus on the use of classifiers in Mandarin NPs. In other words, the obligatory use of classifiers in Mandarin NPs is explicitly/implicitly assumed. The [Num+N] structure is omitted in many studies. In the next section, I will present evidence to suggest that [Num+N] is a productive NP structure in Mandarin Chinese, and studies which aim to provide a comprehensive analysis of Mandarin NPs should include discussions on this structure.

4.0 [yi+N] is a Productive Structure in Mandarin Chinese

This section aims to provide a description of [yi+N]’s distribution pattern in Mandarin Chinese. In this section, I examine whether the [yi+N] structure can appear at the subject and object position in declaratives, negations, and interrogatives. In addition, I discuss the meaning of yi in [yi+N] in the above syntactic environments. The goal is not to isolate yi from [yi+N] or
from the sentences where it occurs. Rather, I aim to observe how the interpretation of yi can be affected by syntactic factors.

4.1 [yi+N] as the subject in declarative sentences

[yi+N] as the subject (or as part of the subject) in declarative sentences can either have indefinite (7) or definite (8) denotations. The semantic meaning of yi in (7) is roughly equivalent to the English certain. In (8), yi shu ‘a book’ and the preceding proper noun are in apposition and the [yi+N] structure has a definite interpretation. Yi in (8) roughly means the in English.

(7) You yi ren (er) lai zhao guo ni.
     Exist one people (RET) come find ASP 2SG
     ‘There was a guy looking for you.’

(8) Zhongguo shaoshu minzu wenhua shi yi shu jijiang chuban.
     China minority ethnic.groups culture history one book soon publish
     ‘The History of Chinese Ethnic Minority Culture is going to be published soon.’
     (Sun, 1996, p.37)

4.2 [yi+N] as the object in declarative sentences

[yi+N] as the object (or as part of the object) can either have indefinite (9-10) or definite (11) interpretations. In (9)-(10), yi can have either specific or nonspecific denotations depending on tense (realis or irrealis). In (9), [yi+N] can be associated with different aspects in realis tense. The fact that the [yi+N] structure can serve as the subject in the secondary predicate indicates that the [yi+N] structure in (9) has specific denotations (Huang, 1987). On the other hand, [yi+N] in (10) is associated with irrealis tense, triggered by the modal verb hui ‘will’. [yi+N] in (10) has a nonspecific interpretation because it cannot be the subject of a secondary predicate. Regarding semantic meaning, yi in (9) and (10) uniformly denotes cardinality one.

(9) a. Zhangsan chi le yi dangao (=, tian de rang ren shou bu liao.) (specific)
     Zhangsan eat ASP one cake sweet DE make people bear NEG able
     ‘Zhangsan ate a cake (=, which is too sweet to bear).’

    b. Zhangsan chi guo yi dangao (=, tian de rang ren shou bu liao.) (specific)
       Zhangsan eat ASP one cake sweet DE make people bear NEG able
       ‘Zhangsan once ate a cake (=, which is too sweet to bear).’

    c. Zhangsan zai chi yi dangao (=, tian de rang ren shou bu liao.) (specific)
       Zhangsan ASP eat one cake sweet DE make people bear NEG able
       ‘Zhangsan is eating a cake (=, which is too sweet to bear).’

    d. Zhangsan chi zhe yi dangao (=, tian de rang ren shou bu liao.) (specific)
       Zhangsan eat ASP one cake sweet DE make people bear NEG able
       ‘Zhangsan is eating a cake (=, which is too sweet to bear).’

(10) Zhangsan hui chi yi dangao (*, tian de rang ren shou bu liao.)(nonspecific)
     Zhangsan MOD eat one cake sweet DE make people bear NEG able
     ‘Zhangsan will eat a cake (*,which is too sweet to bear).’

In (11), yi shu ‘a book’ and the preceding proper noun are in apposition as in (8). Yi in (11) has a definite interpretation, and yi roughly means the in English.
(11) Weishengbu rencai jiaoliao fuwu zhongxin zuzhi xiangguan
Ministry of health talent exchange service center organize relevant
 jigou he zhuanjia zhuanxie le xiangcun yisheng bidu yi shu. A
organizations and experts compose ASP rural area doctor must-read one book
‘The Talent Exchange Center of the Ministry of Health brought together relevant
organizations and experts to compose a book entitled *Readings for Doctors in Rural
Areas.*’

4.3 [yi+N] as the subject in negations
[yi+N] can only generate grammatical sentences as the subject if co-occurring with modal
verbs. [yi+N] in (12) denotes a specific *indefinite* interpretation, and the meaning of yi is comparable to *one*.

(12) a. Mei you yi ren (er) neng rang ta manyi.
   NEG have one people (RET) can make him satisfied
   ‘No one can satisfy him.’

b. Zhi you yi ren (er) meiyou wancheng zuoye.
   only exist one people (RET) NEG finish homework
   ‘There is only one person who did not finish his homework.’

4.4 [yi+N] as the object in negations
[yi+N] denotes nonspecific indefinite interpretations as the object in negations. See (13) for example. The meaning of yi is similar to *any*.

(13) a. wo jiu bu xin ni mei xihuan guo yi ren (er).
   1SG very NEG believe 2SG NEG like ASP one people (RET)
   ‘I do not believe that you have not liked anyone before.’

b. wo jiu bu xin ni cong lai dou mei banza guo yi chaishi.
   1SG very NEG believe 2SG always all NEG mess up ASP one errand
   ‘I do not believe that you have not messed things up before.’

4.5 [yi+N] as the subject/object in questions
[yi+N] as the subject (see (14)) and as the object (see (15)) in questions can only have specific *indefinite* interpretations. The semantics of yi is comparable to *one*.

(14) a. yi ren (er) qu nar?
   One people (RET) go where
   ‘Where are you going?’

b. You yi nianqing nanzi cong zheli jingguo ma?
   Exist one young guy from here pass through PAR
   ‘Did you see a guy passing through?’

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2 I would like to express my thanks to an anonymous BEAL reviewer for suggesting this example.
(15) a. Ni xihuan yi guniang?
   2SG like one girl
   ‘Is there a girl that you like?’

b. Ni diandao yi yaoshi shi ba?
   2SG pick up one key COP PAR
   ‘You found a key, right?’

5.0 Conclusion
In short, table 1 summarizes the syntactic distribution of [yi+N] in Mandarin Putonghua and
the meaning of yi in [yi+N]. This study is limited by the range of data, but the preliminary
findings of this study lend support to Tsai’s (2002) conclusion that “Chinese numerals not only
express cardinality, but also sport various quantificational construals depending on their syntactic
positions” (p. 301).

Table 1: [yi+N]’s distribution and yi’s meaning

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<th>[yi+N]</th>
<th>the semantics of yi</th>
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<td>declaratives</td>
<td>subject</td>
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<td>object</td>
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Acknowledgements
I would like to thank Professor Zhiguo Xie, a BEAL anonymous reviewer, and the audience at BEAL 2014 for their
valuable feedback and suggestions on this project.

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symposium on linguistic diversity and language theories, University of Colorado at Boulder.