De-verbalization and Nominal Categories in Mandarin Chinese:

A corpus-driven study in both Mainland Mandarin and Taiwan Mandarin

Jiajuan Xiong
Department of Chinese and Bilingual Studies
The Hong Kong Polytechnic University
Hong Kong
jiajuanx@gmail.com

Chu-Ren Huang
Department of Chinese and Bilingual Studies
The Hong Kong Polytechnic University
Hong Kong
churen.huang@polyu.edu.hk

Abstract

This paper probes into the issue of de-verbalization in Chinese by starting from two potential and innovative uses of de-verbalization in Mainland Mandarin and Taiwan Mandarin, respectively. Then, we move to the exploration of various nominal categories in Chinese, with regard to their grammatical behaviors as well as their ontological differences. Crucially, we find that nominal categories in Chinese diverge upon individualization, which can be realized along either spatial or temporal dimension, as evidenced by the application of different types of classifiers. Specifically, event nouns and deverbal nouns allow temporal individualization only, while *xingwei*-marked nouns are exclusively compatible with spatial individualization. By contrast, entity nouns and *dongzuo*-marked nouns allow both spatial and temporal individualization. Hence, individualization is the key to our understanding of nominal categories in Chinese.

1 Introduction

This paper starts from examining two newly-emergent uses in Mainland Mandarin (MM) and Taiwan Mandarin (TM) and moves to the investigation of de-verbalization in Mandarin Chinese in section 2. In section 3 and 4, we probe into the grammatical behaviors and the ontological

foundations of various nominal categories, respectively.

1.1 [*gezhong* 'all kinds of' + VP/AP] in MM

The function of classifiers is to modify nouns. However, it is found that the generic kind classifier *zhong* 'kind' (Huang 2015), in the form of *gezhong* 'each-kind; all kinds of', is frequently utilized to modify a verb phrase or an adjectival phrase in the social media. This use is noted as [*gezhong* 'all kinds of' + VP/AP]. The following examples (1) – (3) are extracted from *baidu* website for the sake of illustration.[1]

(1) Meng   bao   men bei wangyou **ge**
    adorable child   PL BEI cyber-pals each
    zhong   chengzan.
    CL-kind praise
    'The adorable children are praised so much by the cyber pals.'

(2) Xinwen wa wa wa, zhe yi ji   haokan,
    news   PN   the one CL interesting
    ge zhong   ma   women.
    each CL-kind   abuse us
    'This episode of News Wawawa is especially interesting. It abuses us in various ways.'

(3) Dang ma   de dou zheyang, dui haizi
    be   mother DE all this_way to child
    ge   zhong xihuan.
    each CL-kind like
    'Mothers are always like this. They like their children in various ways/so much.'

1.2 [(*yi* 'one' + CL) + VP + (*de*) +

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[1] Most of the examples in this paper are corpora data, of which the sources are indicated at the end of the sentences. Specifically, SC refers to Sinica Corpus and CCL the corpus constructed by the Chinese Center of Linguistics of Peking University.

dongzuo 'action'] in TM

In Taiwan Mandarin, a verb phrase can be suffixed with the light noun *dongzuo* 'action', which allows the optional application of classifiers. This usage is exemplified in (4) - (6).

(4) Dan you zuo **yi ge yongbao de**
but have do one CL hug DE
dongzuo. (news)
action
'But I've conducted an action of hugging.'

(5) Bu jianyi touziren cishi, zai zuo
NEG recommend investor now again do
renhe jiama de dongzuo. (SC)
any raise_the_investment DE action
'It is not recommendable for investors to increase their investment in any forms.'

(6) Wu xu zuo **shanchu zhi dongzuo**. (SC)
NEG need do delete DE action
'There is no need to do any deleting action.'

1.3 The commonality between the two patterns

Those usages reported in 1.1 and 1.2 are parallel in the sense that de-verbalization is arguably involved in both cases. This is realized either by the application of a classifier *zhong* and/or the addition of a light noun *dongzuo* 'action'. Despite of being de-verbalized, they still serve as predicates in the above examples. This first case instantiates nominal predicates (Tang 1979; Zhu 1982; Tang 2001, 2002; Wei 2007, Zhang 2009), while the second case features the use of a light verb, such as *zuo* 'do' in (4) – (6).

These two innovative uses motivate us to explore de-verbalization, in particular, the mechanisms through which de-verbalization is realized.

2 De-verbalization

2.1 Zero-marked de-verbalization

De-verbalization needs not to be morphologically marked in Chinese (Huang 2015; Huang and Shi 2016), as evidenced by the free use of deverbal nouns. For examples, the verb *youyong* 'swim' can also be used as a deverbal noun in the following examples:

(7) a. Wo xihuan **youyong**.
1SG like swim
'I like swimming.'
b. **Youyong** hen youqu.
swim very interesting
'Swimming is interesting.'

2.2 Coercion-induced de-verbalization

The second attested mechanism of de-verbalization is coercion, by which a nominal feature is imposed on a verbal category. This can be illustrated by the application of classifiers to a verbal category, as in the case of [*gezhong* 'all kinds of' + VP/AP] presented in 1.1.

2.3 De-verbalization by means of the addition of a light noun

2.3.1 *dongzuo* 'action' as a light noun

The third attested mechanism of de-verbalization is the addition of a light noun to a verb or a verb phrase, with the possible assistance of *de*. What we presented in 1.2 in Taiwan Mandarin can instantiate this mechanism. In fact, a similar usage, albeit being rare, is also attested in Mainland Mandarin, as shown in (8).

(8) *dongzuo* 'action' in MM (CCL)
a. puying de dongzuo
catch_firefly DE action
'the action of catching fireflies'
b. fa fu de dongzuo
pronounce [f] DE action
'the action of pronouncing [f]'

It is noteworthy that the *dongzuo*-induced de-verbalization differs between Mainland Mandarin and Taiwan Mandarin in that the addition of *dongzuo* in MM is basically restricted to verbs and verb phrases denoting bodily actions, whereas the same mechanism in TM is applicable to various kinds of actions, be they concrete or abstract.

2.3.2 *xingwei* 'behavior' as a light noun

In fact, *dongzuo* 'action' is not the only light noun that can convert a verbal category into a nominal one. The light noun *xingwei* 'behavior' can serve the similar function in both MM and TM. This is illustrated in (9) and (10) below.

(9) *xingwei* 'behavior' in MM (CCL)
a. caichan rangdu xingwei
property transfer behavior
'the behavior of transferring property'
b. mofang mingxing de xingwei
mimic celebrity DE behavior
'the behavior of mimicking celebrities'

(10) *xingwei* 'behavior' in TM (SC)
a. jiechu xingwei
lend bebavior
'the behavior of lending'
b. liandan fuer de
do_alchemy consume_product DE

xingwei
behavior
'the behavior of doing alchemy and consuming alchemy products'

2.3.3 *dongzuo* 'action' versus *xingwei* 'behavior'

Even though both *dongzuo* 'action' and *xingwei* 'behavior' can be attached to a verbal category to produce a nominal category, they differ in at least two major points:

Firstly, *dongzuo* 'action' and *xingwei* 'behavior' are modified by different types of classifiers. We follow Huang & Ahrens (2003) and Ahrens & Huang (2016) to identify three subtypes of classifiers, viz. individual, kind and event classifiers, as exemplified by *ge* 'piece', *lei* 'kind', and *lun* 'round', respectively. The corpus data show that *dongzuo*-marked nominal can collocate with both individual and event classifiers, while *xingwei*-marked nominal is compatible with individual and kind classifiers. This is exemplified in (11) and (12).

(11)   the collocation between *dongzuo* and classifiers

   a. yi **ge** yongbao de dongzuo
      one CL hug   DE action
      'a hugging action' (individual classifier)

   b. ling   yi **bo** caiche de dongzuo
      another one CL lay_off DE action
      'another turn of laying off action'
      (event classifier)

(12)   the collocation between *xingwei* and classifiers

   a. yi **xiang** jiaoyi xingwei
      one CL   trade behavior
      'one trading behavior'
      (individual classifier)

   b. zhe **zhong** pohuai xingwei
      this CL   destroy behavior
      'this destroying behavior' (kind classifier)

Further consultation work with our informants shows that *xingwei*-marked nouns are incompatible with event classifiers, while *dongzuo*-marked nouns are compatible with kind classifiers, even though the latter is unattested in the corpus examined.

Secondly, unlike *dongzuo* 'action', *xingwei* 'behavior' barely collaborates with a light verb. In fact, only two instances (out of 801) of the collocation between *xingwei* 'behavior' and a light verb are attested, as cited in (13) and (14).

(13)   huo zai haishang **congshi** haidao

or at sea_on do   pirate
xingwei de maoxian shangren. (SC)
behavior DE adventure merchant
'those merchants who conduct the behavior of being pirates'

(14)   ruo zhongjie danwei fei shu   yiliao
      if agency unit   not belong medical
      jigou,   er **jinxing** yiliao
      institution but do   medical_treatment
      xingwei… (SC)
      behavior
      'If an agent is not affiliated to any medical institution but conducts medical treatment…'

Based on the above two differences, we conclude that *dongzuo*-marked nominal and *xingwei*-marked nominal are of different types. Specifically, *dongzuo*-marked nominal is an event noun while *xingwei*-marked nominal tends to be an entity noun. This distinction becomes clearer in section 3 and 4. To sum up, we have examined three mechanisms of de-verbalization in Mandarin Chinese, viz. zero-marked de-verbalization, coercion-induced de-verbalization and light-noun-motivated de-verbalization. These mechanisms help to enrich the nominal category in Mandarin Chinese. In the next section, we will explore various types of nouns, from both grammatical and ontological perspectives. Moreover, we will study how the endurant/perduant dichotomy (Huang 2015) is embodied in various Chinese nominal categories.

3   Various Nominal Categories: how heterogeneous are they?

3.1 Five nominal categories

The nominal category is usually defined as opposed to the verbal category. The former is basically referential while the latter indicates events or states along the dimension of time. However, as far as both grammatical behaviors and conceptual bases are concerned, the distinction is usually unclear. As Huang (2015: 6) points out, the nominal/verbal distinction can be easily blurred with many categorical change devices in language as well as with atypical members of each PoS: such as event nouns, deverbal nominal, denominal verbs etc. Relevant to this current study are various types of nominal categories, such as entity nouns, event nouns, deverbal nouns, *dongzuo*-marked

nouns and *xingwei*-marked nouns. They are exemplified in (15) – (19).

(15)   The entity nouns:
shu;   ren
'book' 'person'

(16)   The event nouns:
huiyi,   bisai
'meeting' 'contest'

(17)   The deverbal nouns:
youyong,   kanshu
'swimming' 'reading'

(18)   The *dongzuo*-marked nouns:
xiadun dongzuo;
squat   action
'the action of squatting';
shanchu zhi dongzuo
delete   DE action
'the action of deleting'

(19)   The *xingwei*-marked nouns:
yiliao   xingwei,
medical_treat   behavior
'the behavior of medical treatment'
pohuai xingwei
destroy behavior
'the behavior of destroying'

In what follows, we will scrutinize the different types of nouns, with special regard to their collocation with classifiers, which reflect different conceptual saliency. Grammatically speaking, nouns in Chinese require the presence of classifiers for enumeration. Conceptually, classifiers form an ontological system (Huang 2015). In addition, Chinese is unique among classifier languages in the world to have classifiers for events and kinds in addition to individual objects (Huang and Ahrens 2003; Huang, 2015; Ahrens and Huang 2016). Based on the properties of classifiers, we will examine how different types of nouns interact with different types of classifiers in order to understand the conceptual differences among different nominal categories.

3.2 The interaction between nominal categories and classifiers

Prior to getting into the interaction issue, let us briefly review the three types of classifiers (Huang and Ahrens 2003; Huang 2015; Ahrens and Huang 2016), as in (20) – (22).

(20)   Individual classifiers:
zhe **ben** shu
this CL book

'this book'

(21)   Kind classifiers:
shier **zhong** dongwu
twelve CL   animal
'twelve kinds of animals'

(22)   Event classifiers:
yi **ban** che
one CL vehicle
'a scheduled run of transportation'

These three types of classifiers interact with nouns in different patterns.

Firstly, entity nouns are versatile in that they can co-occur with three types of classifiers. However, not all the entity nouns can collocate with event classifiers, as exemplified by the contrast (23b) and (24b).

(23)   The entity noun *che* 'vehicle':
a. yi **liang** che (individual classifier)
one CL   vehicle
'one vehicle'
b. yi **ban** che (event classifier)
one CL vehicle
'one scheduled run of vehicle'

(24)   The entity noun *shu* 'book':
a. yi **ben** shu (individual classifier)
one CL book
'one book'
b. *yi   **ci** shu (event classifier)
one CL book

The entity noun *che* 'vehicle' collocates with an individual classifier *liang* to refer to an identifiable entity, whereas it goes with an event classifier *ban* to indicate a scheduled run of vehicle. As already shown in the translation, the event classifier *ban* imposes an event meaning, i.e., running of vehicles, on the entity noun *che* 'vehicle'. These two classifiers embody two different types of individualization of nouns, viz. individualization along the spatial dimension and individualization along the temporal dimension. In other words, when an individual classifier is applied to an entity noun, the individualized entities can be said to exist simultaneously in the world and their individual-hood is obtained through their spatial differences. On the other hand, when an event noun modifies an entity noun, the individualized entities occupy different positions along the temporal dimension. However, such a difference may not be applicable to all the entity nouns. For instance, the entity noun *shu* 'book' defies individualization along the temporal dimension,

even though *shu* 'book' can be naturally connected to actions like *kan-shu* 'read-book' and *xie-shu* 'write-book'. This might be due to the fact that the actions of reading and writing, albeit being conceptually important, are not salient enough to be encoded in the noun by means of the application of an event classifier. It seems that the saliency of an eventive element in an entity noun is determined, to a large extent, by the (scheduled) repeatability of an action with a large group of participants. This is corroborated by the uses of *yi* ***ban*** *che* 'one-CL-vehicle; a scheduled run of vehicle' and *yi* ***chang*** *dianying* 'one-CL-film; a scheduled show of a film'.

Secondly, we examine event nouns, as exemplified by *bisai* 'competition' and *huiyi* 'meeting', with regard to their compatibility with classifiers. An event noun usually requires the presence of an event classifier but not an individual classifier, as exemplified in the contrast between (25a) and (25c). When the meaning of "kind" is encoded, it requires the presence of a kind classifier, as shown in (25b).

(25)　The event noun *bisai* 'competition':
　　a.　$^{*/??}$zhe **ge** bisai (individual classifier)
　　　　 this CL competition
　　　　 Intended: 'this competition'
　　b.　zhe **zhong** bisai (kind classifier)
　　　　 this CL　　 competition
　　　　 'this kind of competition'
　　c.　zhe **chang** bisai (event classifier)
　　　　 this CL　　 competition
　　　　 'this competition'

Thirdly, let us move to the zero-marked deverbal nouns, such as *youyong* 'swimming' and *kanshu* 'reading'. As illustrated in (26), a deverbal noun is most naturally compatible with an event classifier to refer to one instance of an action. An individual classifier is generally inapplicable, as an action is hardly individualized along a spatial dimension. A kind classifier is conditionally applicable to an event noun, when it is interpreted as a manner of conducting an action. However, it seems to us that the addition of a light manner noun, e.g., *fangshi* 'manner', is preferred in this case of a kind classifier.

(26)　The deverbal noun *youyong* 'swimming':
　　a.　*zhe **ge** youyong (individual classifier)
　　　　 this　CL swimming
　　b.　?zhe **zhong** youyong (kind classifier)
　　　　 this CL　　 swimming

intended: 'this manner of swimming'
　　c.　zhe **ci** youyong (event classifier)
　　　　 this CL swimming
　　　　 'this (instance of) swimming'

Note that the application of a kind classifier to deverbal nouns differs between MM and TM. It is MM, but not TM, that allows the modification of a kind classifier *zhong*, on the condition that this kind classifier carries an all-around meaning in the form of *gezhong* 'all kinds of'. (Please refer to 1.1 for examples.)

Fourthly, we look at the grammatical behavior of *dongzuo*-marked nouns, which seem to be compatible with three types of classifiers, as shown in (27a-c).

(27)　The *dongzuo*-marked noun: (TM)
　　a.　yi **ge** jiangjia　　 de dongzuo
　　　　 one CL reduce_price DE action
　　　　 'an action of price-reduction'
　　　　 (individual classifier)
　　b.　zhe **zhong** jiangjia　　 de dongzuo
　　　　 this CL　　 reduce-price DE action
　　　　 'this action of price-reduction'
　　　　 (kind classifier)
　　c.　zhe **bo** jiangjia　　 de dongzuo
　　　　 this CL reduce_price DE action
　　　　 'this turn of price-reduction action'
　　　　 (event classifier)

Recall that those uses in (27) are exclusive to TM (see section 2.3.1) and similar uses in MM are restricted to bodily actions. This restriction leads to a scarcity of *dongzuo*-marked nouns in MM.

Fifthly, we take a look at *xingwei*-marked nouns. The corpus data show that the most frequently-used classifier for *xingwei*-marked nouns is *zhong*, which is a generic kind classifier (Huang 2015), in addition to the rare cases of individual classifiers. However, neither the corpus data nor our consultation work testifies any compatibility between *xingwei*-marked nouns and event classifiers. They are illustrated in (28).

(28)　The *xingwei*-marked noun:
　　a.　yi **xiang** jiaoyi xingwei
　　　　 one CL　 trade behavior
　　　　 'one trading behavior'
　　　　 (individual classifier)
　　b.　zhe **zhong** qipian ziji　　 de xingwei
　　　　 this CL　　 cheat oneself DE behavior
　　　　 'the behavior of cheating oneself'
　　　　 (kind classifier)
　　c.　*yi **ci** qipian ziji　　 de xingwei

4. Various Nominal Categories: their ontological differences

In section 3, our study revolves around the grammatical behaviors of the different nominal categories. In this section, we will explore their ontological or conceptual differences.

All of the afore-mentioned nouns exhibit the endurant property (Huang 2015).[3] The semantic denominator of various types of nominal categories lies in their referentiality. However, they differ in how they are individualized for enumeration. In particular, we identify two types of conceptually different individualization, i.e. separation into countable objects which exist simultaneously as separable individuals; and separation into countable objects which exist along the temporal dimension. Put differently, there are both spatial and temporal ways for individualization. In fact, the application of individual classifiers and event classifiers exactly reflects these two individualization mechanisms. Let us now examine how the five nominal categories execute their respective individualization.

At this point, the use of classifiers, in particular, individual and event classifiers, can be revealing with regard to the ontological differences of nominal categories, given that Chinese classifier system itself forms an ontological system (Huang 2015). Our approach is to place nominal categories into a matrix with both spatial (horizontal) and temporal (vertical) dimensions and see how individualization is realized. Our analyses show that some nominal categories allow individualization to be executed along one single dimension, either spatial or temporal. In fact, event nouns and deverbal nouns can only be individualized along the temporal dimension, while *xingwei*-marked nouns along the spatial dimension. Some other nominal categories, such as entity nouns and *dongzuo*-marked nouns, allow individualization in two different dimensions. For example, when entity nouns collocate with event classifiers, the entity nouns are individualized into sequentially different objects/events, by means of coercion. In the similar vein, *dongzuo*-marked nouns, albeit being originally verbal, can be wrapped into nominal objects along the spatial dimension through conceptual conversion.

All these mechanisms for individualization are exemplified from (32) to (36).[4]

(32) The entity noun *feiji* 'plane':
    a. yi **jia** feiji (individual classifier)
      one CL plane
      'one plane'
    b. yi **ban** feiji (event classifier)
      one CL plane
      'one scheduled flight'

(33) The event noun *bisai* 'competition':
    yi **chang** bisai (event classifier)
    one CL   competition
    'one competition'

(34) The deverbal noun *youyong* 'swimming':
    Yi **ci** youyong (event classifier)
    one CL swimming
    'one instance of swimming'

(35) The *dongzuo*-marked noun:
    a. yi ge jiangjia   de dongzuo
      one CL reduce_price DE action
      'one action of price-reduction'
      (individual classifier)
    b. yi **bo** jiangjia   de dongzuo
      one CL reduce_price DE action
      'a round of price-reduction'
      (event classifier)

(36) The *xingwei*-marked noun:
    yi **xiang** jiaoyi xingwei
    one CL   trade behavior
    'one trading behavior'
    (individual classifier)

For the sake of explanation, we place the five nominal categories into their respective two-dimensional matrix to illustrate how individualization is realized in each case. They are shown in Figure 1 to 5.
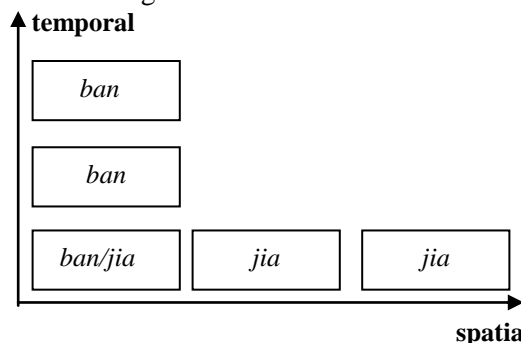

Figure 1: The individualization of *feiji* 'plane'

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[3] Please see Huang (2015) for the detailed discussions on the dichotomy between endurant and perdurant.

[4] We do not consider kind classifiers here, as they are conceptually in line with individual classifiers in that both of them realize individualization on the spatial dimension.
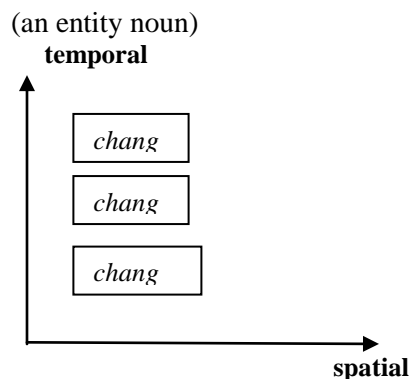
(an entity noun)

temporal

chang

chang

chang

spatial

Figure 2: The individualization of *bisai* 'competition' (an event noun)

temporal

ci

ci

ci

spatial
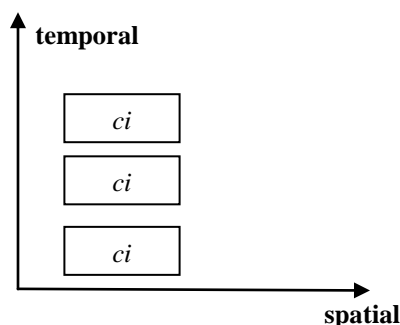
Figure 3: The individualization of *youyong* 'swimming' (a deverbal noun)

temporal

bo

bo

bo/ge | ge | ge

spatial
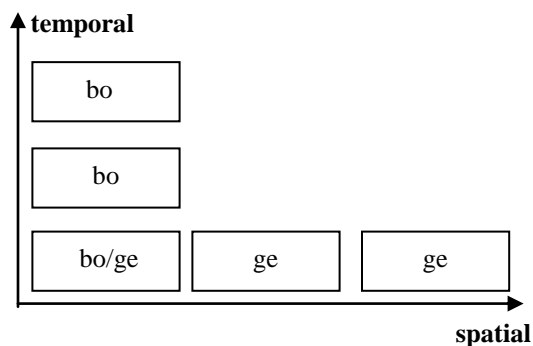
Figure 4: The individualization of a *dongzuo-* marked noun
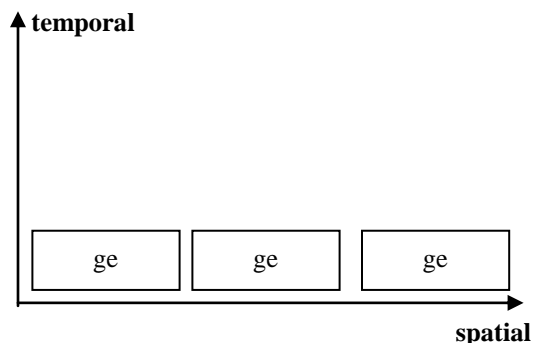
temporal

ge | ge | ge

spatial

Figure 5: The individualization of a *xingwei-* marked noun

It is noteworthy that the temporal standard for individualization, in particular, in the case of event classifiers, does not undermine Huang's (2015) statement that a classifier serves as a linguistic device to express a defining property of a type of time-invariant entities. In fact, our proposal that individualization can be temporal is in the sense of comparison among various instances of the same nominal (e.g., this instance of meeting; that instance of meeting). If we place our vantage point onto one and the same nominal phrase, this nominal phrase must be time-independent, as in the case of *zhe ci bisai* 'this competition'.

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