

Transcategorical Shift in Mandarin Revisited: The Case of Nominalization

LI Linze^{[a],*}

^[a]Lecturer, College of International Studies, Southwest University, Chongqing, China.

* Corresponding author.

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Abstract

The article presents an analysis of transcategorical shift in Mandarin. Building on scholarly works conducted in the last century, this work sets out to present a new account of nominalization in terms of its underlying cognitive mechanisms. A new notion, ontologicalization, is introduced into the study. It is argued that nominalization does exist in Mandarin and occurs on various levels, ranging from lexis to sentences. It may take on different forms, affix-derivation and zero-derivation. As detailed illustrations of the new approach, it is shown that structures like *zhe ben shu de chuban* (the publication of this book) and *ta de bu lai* (his not coming) are actually exocentric constructions and the possibility of defining *de* as a nominalizing infix.

Key words: Transcategorical shift; Nominalization; Ontologicalization; Mandarin

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INTRODUCTION

The present study focuses on nominalization, a type of significant transcategorical shift, in Mandarin and it has mainly been prompted by three observations. At the first place, the existing descriptive analyses of nominalization fail to embed the peculiarities of specific nominalization

types in a coherent and systematic way. Secondly, the analysis of nominalization tends to be biased towards the lexical categories, with the nominalization of phrases and clauses being neglected. Researches of this type resulted in fragmented conclusions that cannot incorporate lexical and clausal nominalizations in general. Last but not the least, the fact that the research of nominalization in Mandarin being based on a theoretical background drew from Indo-European languages led to failures in revealing the special features of nominalization in Mandarin.

These observations reflect deficiencies of theory as well as of description in previous studies. The central theoretical problem is how we can model nominalization in a systematic and general way that account its manifestations from lexis to clauses and across different languages. The central descriptive problem is which features of words and clauses should be considered to be involved in nominalization. In the literature, most attention so far seems to have gone to the relationship between word classes and sentences components (Zhu, 1961, 1984; Zhu, Lu, & Ma, 1961; Liu, 1994; etc.), the remodeling of word class system (Shen, 2007, 2009, 2010, 2011; Guo, 2010; Lu, 2013; Wang, 2018; etc.) and case studies on the clausal level (Shi, 1981, 1988; Zhang, 1993; Wang, 2002; Lu, 2003; Si, 2004; Wu, 2006; Zhou, 2013; etc.). Despite of the century-long exploration, reaching a general nominalization theory is still out of the question.

To tackle the theoretical as well as the descriptive deficiencies, this study first recapitulates the main findings and flaws in previous studies of the issue in part 2. Part 3 is a general theoretical-descriptive part composed of the introduction and definition of the concepts which are required to remodel nominalization. Instead of a purely structural approach, we hold that the research of nominalization calls for functional as well as cognitive approaches. Therefore, a new concept, ontologicalization, will be introduced into the research to manifest the underlying conceptual mechanism of nominalization

in general. As will become clear, it also serves as an invisible but important criteria for the identification of nominalization since nominalized units do not always have discernible structural components like suffixes or infixes. And only by adopting this new concept that one can relate nominalizations which contain part of a clause or a full clause (e.g., *Ta de bu chifan rang women hen shengqi* (Her not having meals makes us very angry)) to nominalizations at the lexical level (e.g., *laodong* (work, Vi.)→*laodong* (work, N.)). In line with the cognitive tenets, we hold that ontologicalization is a prevailing cognitive manipulation underlying nominalized linguistic expressions, no matter to what degrees of entrenchment these expressions might be.

In part 4, we move beyond the existing classification of nominalization and reclassify it into three distinct types, namely, suffix nominalization, zero nominalization and *de* nominalization. This is a more effective classifying system than what we had before, if there was any indeed. Each of the three types serves as a covering term for some subordinate types of nominalization, ranging from lexis, phrases, clauses and sentences or portions of sentences. The new classification provides a coherent and systematic account of nominalization in Mandarin.

Then all types of nominalization will be analyzed in a systematic manner. By systematic, we do not mean reciting research findings that has been widely agreed upon and place equal weight on each type. Emphasis will be given to the lacunae and weak points in the existing literature and especially to the controversial case studies like *zhe ben shu de chuban* (the publication of this book), *ta de bulai* (his not coming), etc.

In the last part, the study will be concluded by summarizing the theoretical and descriptive insights of this paper and their validity of application to the study of nominalization.

1. PREVIOUS RESEARCHES ON NOMINALIZATION IN MANDARIN

The issue of nominalization in Mandarin is of extraordinary complexity as it is intertwined with the problem of Chinese word classification and the correspondence between word classes and syntactic roles. The discussion of categorical shift of word classes dates back to the first Chinese grammar book, *Ma's Grammar* (Mashi Wentong) in 1898. As a significant difference from that of Indo-European languages, a large number of verbs and adjectives can be used as subjects or objects without any discernible morphological change. From that time onwards, categorical shift becomes an ineluctable topic in every single Chinese grammar book and poses as a long-standing challenge scholars have to face.

Scholars like Ma (1898), Chen (1922), Jin (1922), Li (1924), Li & Liu (1960), Shi (1960), Hu & Fan (1994),

etc. hold that the verbs and adjectives functioning as subjects are nominalized based on the fact that they lost some of their original categorical features while taking on nominal functions and syntactic roles usually for nouns. However, Zhu & Lv (1952), Zhu, Lu & Ma (1961), Zhu (1961, 1984) hold that generalizations drew from the one-to-one correspondence between word classes and their syntactic roles in Indo-European languages cannot embed the specific features of Chinese language. Their views can be summarized as the claim of the multifunction of Chinese words in the regard of taking on different syntactic roles and, thusly, the negation of nominalization in Mandarin. Shen (2007, 2009, 2010, 2011) and Wang (2018) take a step further and claim that Chinese words are inclusive categories (with adjectives as part of verbs and verbs as part of nouns as shown in Figure 1) as against the separating word categories in Indo-European languages as shown by Figure 2.

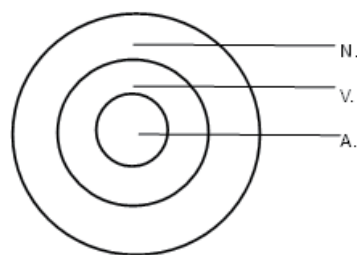


Figure 1

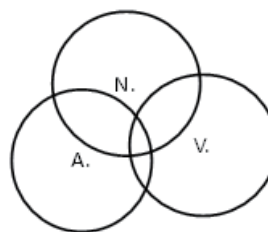


Figure 2

Still others (e.g. Gao, 1960; Xu, 1994) claim that there is no word class or lexical category in Mandarin because the lack of morphological change renders classification based on form impossible, and the multifunction of Chinese words undermines the validity of classification based on usage.

Researches on nominalization also went beyond the lexical level, but the core issue of lexical nominalization again poses as a challenge. Most of the researches on the phrases, clauses, sentences or portions of sentences go eventually to the discussions of the nominalization of the head of the structures and, especially, the possibility of the application of the endocentric construction theory to Chinese analysis. Scholars (Shi, 1981, 1988; Zhu, 1984; Xiang, 1991; Cheng 1999a, 1999b; Si, 2002, 2004; Lu,

2003; Shi, 2004; Wu, 2006, etc.) made continuous efforts to tackle the challenge. It hardly can be said that any consensus has been reached till now, but what for sure is that all the discussions focus on the question of whether the heads of the constructions are nominalized or not. Therefore, it's quite safe to conclude that there is hardly any research of nominalization beyond the lexical level in Chinese literature in actuality.

Close recapitulation of the researches on nominalization as mentioned above reveals clear theoretical as well as descriptive deficiencies. At the first place, the over-simplified view that verbs and adjectives functioning as subjects or objects are all nominalized would create vast number of multi-category words. The confirmation of word classes will be determined by the syntactic roles they take, and, worst of all, the categorization of word classes would be impossible without the reference to syntax. Consequently, the research of Chinese language becomes rootless as they lose their basic foundations of linguistic research.

Secondly, the claim that the verbs and adjectives functioning as subjects and objects do not undergo any categorical change equates the multifunctional view of Chinese verbs and adjectives. This approach goes in direct conflict with the notion of *head* in Bloomfield's¹ (1933) endocentric constructions, Chomsky's (1970, 1995) X-bar syntax and head theory, Gazdar & Pullum's (1981) and Gazdar *et al.*'s (1985) Generalized Phrase Structure Grammar, Anderson's (1971, 1977) and Matthews' (1981) dependency grammar, to name but just few. Zhu (1984) tried to redefine endocentric structure by adding the notion of *semantic selection restriction* and later in 1985 there seemed a change of view towards nominalization (cf. Guo, 2010). However, his redefinition of the endocentric construction theory was considered as ineffective by Cheng (1999c). As for Shen's (2007, 2009, 2010, 2011) and Wang's (2018) claim on the hierarchical inclusion of Chinese nouns, verbs and adjectives, their theory contradicts with native speakers' intuition about word classes and is flawed from a logical perspective (see also Lu, 2013).

Thirdly, the denial of the possibility of word categorization in Mandarin cannot tackle the challenges of category shift and nominalization in particular on one hand, and makes the issue even more complicated on the other. Therefore, it is not widely accepted.

Last but not the least, the researches of nominalization were biased towards the lexical level in Mandarin and, thusly, the findings are far from systemic and general.

Summing up, the challenge of nominalization in Mandarin seems far more complicated than that in Indo-European languages because of the lack of inflection and

overt morphological change. Ever since Ma's research over one century ago, it still poses as a major challenge for Chinese linguists. A theory that can both account for nominalization in human languages in general and embed the peculiarities in Mandarin is still a long way off.

2. DEFINING ONTOLOGICALIZATION

The concept of ontologicalization is introduced into the research based on the deficiencies in revealing the underlying cognitive process of nominalization. We borrowed the term from Lakoff and Johnson's seminal work in 1980 that as a general and ordinary cognitive way to recognize and function in this world, people tend to treat abstract concepts as entities:

Understanding our experiences in terms of objects and substances allows us to pick out parts of our experience and treat them as discrete entities or substances of a uniform kind. Once we can identify our experiences as entities or substances, we can refer to them, categorize them, group them, and quantify them—and, by this means, reason about them.

(Lakoff & Johnson 2003:23)

Ontological metaphors reflect the ways of viewing events, activities, emotions, ideas, etc., as entities and substances. In nominalization, people are going through the same underlying cognitive manipulation, treating abstract concepts as concrete ones. Its manifestation in language is enormous as "the nouns express an object-experience, be it really such (stone, house, man) or viewed as such (skating, length, greenness)" (Bloomfield, 1983: 121). As can be seen in the review of the researches, verbs and adjectives can function as subjects and objects without morphological change in Mandarin and the core dispute is whether these words are nominalized or not. From a cognitive standing point, we propose that all activities, events, properties, etc. represented by the verbs, adjectives, phrases and clauses are ontologicalized.

The necessity of this new concept resides in the fact that while in some languages, e.g. English, nominalization and ontologicalization are pairs, shown by the conspicuous markers of gerundive nominals, derived nominals and *that*-structures, but because of vast number of zero-derivation and ellipsis in Mandarin (see also Lu, 2013), it hard to tell exactly whether the verbs and adjectives are nominalized or not.

(1) a. John is eager to please.

b. John has refused the officer.

c. John criticized the book.

(2) a. John's being eager to please.

b. John's refusing the officer.

c. John's criticizing the book.

(3) a. John's eagerness to please.

b. John's refusal of the officer.

c. John's criticism of the book. (Adopted from Chomsky, 1970:187)

¹ As claimed by Bloomfield in 1933, an endocentric construction fulfils the same linguistic function as one of its parts, which is usually called the center or the head of the construction.

- (4) a. *gongsi zai fazhan.*
 Company ASP develop.
 The company is developing.
 b. *fazhan hen zhongyao.*
 Develop very important.
 Development is very important.
 c. *fa bu fazhan yu wo wuguan.*
 Develop NEG develop and 1SG no connection.
 Whether (the company, etc.) will develop or not is none of my business.

Chomsky's examples as cited above show that there are nominalizing markers in English, while Chinese strikingly differs from English in that, as shown by (4), *fazhan* (develop) can be used fairly freely as a predicate in (4)a or a subject in (4)b. There would be no disagreement about the categorical shift of *fazhan* from verbal to nominal in (4)b. However, (4)c represents an intriguing issue because, as the subject of the sentence, *fazhan* is definitely a verb here because it is modified by *bu* (not), which is a predicate negator. Close examination reveals that utterances like (4)c are colloquial and their successful understanding are highly context-dependent. The real subject of the sentence is the ontologicalized event "Whether (the company, etc.) will develop or not" and *fazhan* is a standing component of the simplified clause. Therefore, *fazhan* in (4)c is still a verb and the real subject is the ontologicalized clause. In actually, people tend to ontologicalized events, actions, thoughts, etc. as entity conceptually and their nominalization on the syntactic level renders them as easy topic or subject of forthcoming narration or description.

Therefore, we propose a definition of ontologicalization as the cognitive manipulation of viewing abstract things such as events, activities, emotions, ideas, etc., as entities and substances. It is the fundamental conceptual basis for nominalization in languages in general. Ontologicalization above the lexical level, e.g. phrases, clauses, sentences or portions of sentences does not require the nominalization of all components in the structure. In languages lack of nominalization markers, repeated ontologicalization of lexis enhances the degree of entrenchment and may lead to the production of multicategorical words. The differences between ontologicalization and nominalization lies in the fact that the former resides in the conceptual level and considered as general cognitive manipulation while the latter is a natural consequential syntactic manifestation of the former.

3. NOMINALIZATION IN MANDARIN

3.1 Suffix Nominalization

The most obvious and easily identifiable type of nominalization is the one through suffix derivation. Suffixes like *-zhe* (people), *-pin* (thing), *-jia* (professional), etc., are added to predicate words, usually verbs, to refer to the agent, patient, tool or even the location, manner and time of the action. Studies (e.g., Wang, 2004) show that agents and patients are the most frequent targets of nominalization. It is a natural result of the close relationship between the verb and its agent/patient in the idealized cognitive model (ICM) of action. The following are some examples of the ACTION FOR AGENT nominalization.

| | | | | | | |
|--------------------------|-------------------|--------------------|--------------------|---------------------|---------------------|-----------------------|
| <i>-zhe</i> (people) | <i>bianzhe</i> | <i>duzhe</i> | <i>ducaizhe</i> | <i>jizhe</i> | <i>xuezhe</i> | <i>huanzhe</i> |
| | <i>Edit-zhe</i> | <i>read-zhe</i> | <i>dictate-zhe</i> | <i>note-zhe</i> | <i>study-zhe</i> | <i>infected-zhe</i> |
| | Editor | reader | dictator | journalist | scholar | patient |
| <i>-yuan</i> (people) | <i>caipanyuan</i> | <i>banshiyuan</i> | <i>fuwuyuan</i> | <i>guanchayuan</i> | <i>qianshuiyuan</i> | <i>linghangyuan</i> |
| | <i>judge-yuan</i> | <i>work-yuan</i> | <i>serve-yuan</i> | <i>inspect-yuan</i> | <i>Dive-yuan</i> | <i>laviagate-yuan</i> |
| | referee | clerk | waiter | inspector | diver | navigator |
| <i>-shi</i> (people) | <i>Zhanshi</i> | <i>Hushi</i> | <i>Bianshi</i> | <i>Qishi</i> | | |
| | <i>War-shi</i> | <i>Nursing-shi</i> | <i>debate-shi</i> | <i>Ride-shi</i> | | |
| | soldier | Nurse | debater | rider | | |
| <i>-shou</i> (hand) | <i>Bangshou</i> | <i>Dashou</i> | <i>Sheshou</i> | <i>Zhushou</i> | <i>Nieshou</i> | <i>bashou</i> |
| | <i>Help-shou</i> | <i>Fight-shou</i> | <i>Shoot-shou</i> | <i>Assit-shou</i> | <i>Hunt-shou</i> | <i>Steal-shou</i> |
| | Helper | fighter | Bully(N.) | Assistant | Hunter | thief |

The four suffixes as shown above, together with *-ren* (people), *-sheng* (people), *-zi* (son), *-jia* (professional), *-zhu* (owner), *-shi* (master), *-tou* (head), *-wu* (thing), etc., are added to verbs as nominalizing markers indicating the agent of the action. With different roots and routes of grammaticalization, the nominalizers carries with them varying connotations and have their fixed collocations. For example, although both *-zi* and *-sheng* can pair with *xue* (study), i.e., *xuezi*, *xuesheng*, to mean "student", the resultant compounds have different meanings and usages

with *xuezi* being a collective word and only used in poetic styles. *zhe* denotes professionalism in a field, so when *zhe* is added to *xue* (study), the word *xuezhe* does mean a student, but a scholar. Obviously, in regard of number and variety, Chinese are much larger than those in English.

In the ICM of action, patient is of secondary importance to agent. Correspondingly, a large number of suffixes can be added to verbs to donate the patient of the action.

| | | | | | | |
|-----------------|------------------------|----------------------------|----------------------------|-------------------|------------------------------|-------------------------------|
| | chanpin | chulipin | zhanlanpin | xishengpin | xiaofeipin | bixupin |
| -pin (thing) | Produce-pin product | Dispose-pin Bargain(n.) | Exhibit-pin Exhibit(n.) | Die-pin victim | Buy-pin Consumption goods | Vitally need-pin Necessity |
| | canzhaowu | duwu | hunhewu | shiwu | shiwu | wanwu |
| -wu (thing) | Refer-wu Reference | Read-wu books | Mix-wu mixture | Eat-wu food | Lose-wu Lost property | Play-wu toy |

pin (thing) and *wu* (thing) are productive nominalizers in Mandarin. The resultant words implies passiveness and are the usual patients of the actions. Similar suffixes are *zi* (son), *tou* (head), *er* (son), *yuan* (people), *shou* (hand), etc. The overlapping of agent suffixes and patient suffixes is a natural linguistic manifestation of the fact that people or personalized things may play different roles in action events.

In the ICM of action as shown by Figure 3, the bold line linking the circle (agent) and the square (patient)

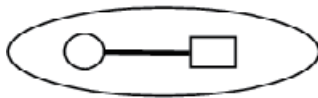


Figure 3



Figure 4

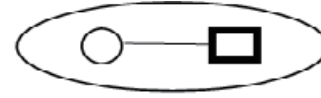


Figure 5

Wang's (2004) study shows that nearly ninety percent of the deverbal nominals are the agents or patients involved in the action while about ten percent refers to the tool of the action. In only a few cases, the deverbal nominals refer to the time, place or location. Her statistics are in line with ordinary cognition that agents and patients are salient and indispensable elements in the ICM of action.

In actuality, *-de* is also a productive nominal suffix in Mandarin, but since its nominalizing mechanism is slightly different from that of the suffixes that we address in this part, we will have a separate section to address the issue.

3.2 Zero Nominalization

In this part, we will argue against the view that Chinese verbs and adjectives can function as subjects and objects, and claim that these verbs and adjectives are actually ontologicalized conceptually and nominalized syntactically, and in most cases their way of nominalization is zero derivation.

Discussions on the nominalization of verbs and adjectives being used as subjects and objects have been going on for over a century. It is an unavoidable challenge for scholars interested in the research of Chinese language. Upon close investigation into the so-called verbal or adjectival subjects and objects, we tend to hold that all verbs and adjectives are nominalized. The core issues are, in actuality, the pervasion of zero derivation and

represents the action. The verb usually represents a relation between the agent and patient and a transfer of energy. The core elements involved in the relation are agents and patients. Other elements, like tool, time, place, etc., are also involved in the relation too, but they are of minor importance. Figure 4, which shows the ACTION FOR AGENT nominalization and Figure 4, which represents the ACTION FOR PATIENT nominalization, are both natural results of the conceptual dependency of actions to agents and patients in an action ICM.

the degree of entrenchment in word categorical shift. The multifunctionality of verbs and adjectives is not a special feature of Chinese language, but the pervasiveness of zero derivation is.

(5) *youyong* *dui* *shenti* *you* *haochu*.

Swim to body have good.

Swimming is good to the body.

(6) *qianxu* *shi* *yi* *zhong* *meide*.

Modest is one CLAS virtue.

Modesty is a virtue.

There is no dispute that *youyong* is used as a noun in (5) because of its daily usage in reference to the name of a sport that people usually do instead of the actions that we do in a pool. Actually, in Chinese dictionaries, there is also a separate nominal entry for it too. However, the part of speech of *qianxu* in (6) is problematic. Some consider it as a nominalized word while others take it as an adjectival subject. We are biased towards the view that it is ontologicalized to refer to an abstract thing, a mode of behavior and a favorable personal character. It went through a process of affix free nominalization. In daily usages, it usually resides somewhere between the poles of nouns and adjectives and it is believed that, with repeated ontologicalization and usage, it will eventually take on the function of noun and become a multicategorical word as exemplified below.

Action for Agent

daoyan (direct-director)

daoyou (guide vt.-guide n.)

huwei (guard vt.-guard n.)

bianji (edit-editor)

jiankao (invigilate-invigilator)

fanyi (translate-translator)

bianju (write a play-playwrite)

ducha (inspect-inspector)

linghang (navigate-navigator)

guanshi (housekeep-housekeeper)

daibiao (represent-representative)

lingchang (lead a song-precentor)

| | | |
|-----------------------------------|---------------------------------------|---|
| <i>suicong</i> (follow-attendant) | <i>chuna</i> (receive/pay-cashier) | <i>caigou</i> (purchase- purchaser) |
| <i>lingdao</i> (lead-leader) | <i>genchai</i> (serve-attendant) | <i>shoufa</i> (receive/give-dispatcher) |
| Action for Patient or Result | | |
| <i>shouru</i> (receive-income) | <i>baochu</i> (rent a car-rental car) | <i>cangshu</i> (collect books-books) |
| <i>gengdi</i> (plough-field) | <i>daikuan</i> (borrow money-loan) | <i>faming</i> (invent-invention) |
| <i>kaizhi</i> (spend-expenditure) | <i>chuxu</i> (save-deposit) | <i>gugong</i> (employ -employee) |
| <i>pingfen</i> (mark vt.-score) | <i>diaoke</i> (carve-sculpture) | <i>zuowen</i> (compose-composition) |
| <i>jianzhu</i> (build-building) | <i>xiwang</i> (hope vt.-hope n.) | <i>jihua</i> (plan vt.-plan n.) |
| <i>baozhuang</i> (pack-package) | <i>mengxiang</i> (dream vt.-dream n.) | <i>dasuan</i> (intend-intension) |

Zero derivation may be a means to optimize language, allowing a minimum of forms to have a maximum of functions (cf. Zipf, 1949; Robert, 2003; etc.) and conforms to Martinet’s (1960) notion of “economy”, satisfying communicative needs with least efforts. However, are all verbs and adjectives in the position of subject or object

(7) *fucong* you shenme haochu?

Obey have what good?

If we obey, what benefit will we have?

(8) *qianxu* caineng yingde renmen de zunzhong.

Modesty can win PRT people NOM respect.

Being modest can win people’s respect.

Lu (2013) holds that the verb *fucong* (obay) in (7) and *qianxu* (modest) in (8) are not nominalized. They can be modified by adverbials like *bu* (not), which is an exclusive modifier for predicate words, i.e. verbs and adjectives. *fucong* (obay) and *qianxu* (modest) are part of the ontologicalized phrases and their interpretations are highly contextual. In accordance with our definition of ontologicalization in part 3 that the ontologicalization of phrases and clauses does not require the nominalization of every component of the structure, *fucong* and *qianxu*, as the remaining components of the ontologicalized but simplified structures, keep their original categorial statuses as a verb and an adjective respectively.

If our analysis above is correct, the next challenge we face is to determine whether the predicate words in the slot of subject or object is nominalized or not since, in both ways, there is no conspicuous morphological change for distinction. The conclusion generally drawn is that the distinction can be established and characterized in terms of grammatical behaviors. Indeed, nouns has distinctive grammatical properties from that of verbs and adjectives and that characterization is still valid in this case. Take *youyong* (swim, vi. & swimming, n.) for example. When it is taken as an exercise, or a game in the Olympics, it is an abstract noun and conceptually independent. But when it is used in the context where a boy, who does not want to leave his toys and go to the swimming pool, argues with his mother:

(9) “*youyong* you shenme haochu? *Bu youyong* you sheme huaichu?”

“Swim has what good? NEG swim has what bad?”

If I swim, how will it benefit me? If I don’t swim, how will it harm me?

nominalized and functioning as nouns, no matter they are contemporary borrowing or long-term entrenchment? We get a negative answer because another feature of Mandarin besides zero derivation is the pervasive ellipsis for the effect of simplifying linguistic form.

The contrast between (5) and (9) is self-evident in that *youyong* in the latter can be modified by *bu* (not). In this way, it can be confirmed that *youyong* in (9) is actually the remaining component of a subjunctive clause.

3.3 de Nominalization

As a multifunctional particle and one of the most frequently used words in Mandarin, *de* has been the focus of continuous studies. The current study focuses on its nominalizing functions. Despite of certain slight differences, Zhu (1961), Lu (1957), Li & Thompson (1989) and Guo (2000)² all consider *de* to be a nominalization marker.

Li & Thompson hold that a nominalized *de*-structure can “function either as a noun phrase or as a modifier of another noun” (1989: 576) and they also analyzed the use of the structure after the copula verb *shi*, i.e., *shi... de* construction. In the analysis, *de* can be added after a verb, a verb phrase, a sentence or a portion of a sentence including the verb. Three examples are quoted as follow,

(10) *zhe zhong zhiwu keyi dang zuo chide.*

This type plant can take be eat NOM.

One can take this type of plant as food.

(11) *zhong shuiguo de hen nan guohuo.*

Grow fruit NOM very difficult make living.

It is difficult for fruit growers to make a living.

(12) *women hezuo de wenti hen jian dan.*

1PL cooperate NOM problem very simple.

The problem concerning our cooperation is very simple.

A generalization can be easily made that *de* is added to

² Guo (2000) holds that when a *de*-construction acts as a subject or an object, it undergoes a zero-marked conversion from modification to reference, thus a nominalization on the syntactical level.

each of these verbs, phrases or sentences as a suffix-like nominalizer. However, their researches left out another type of *de* nominalization as exemplified as follows.

(13) zhe ben shu de chuban hen you yiyi.

This CLAS book NOM publish very have meaning.

The publication of this book is very meaningful.

(14) ta hen guanxin zhe ben shu de chuban.

3SG very concern this CLAS book NOM publish.

He is very concerned about the publication of this book.

(15) ta de bu lai rang women bu gaoping.

3SG NOM NEG come make 1PL not happy.

His not coming made us unhappy.

(16) laoshi piping le ta de bu lai.

Teacher criticize ASP 3SG NOM NEG come.

The teacher criticized his not coming.

Structures like *zhe ben shu de chuban* in (13), (14) and *ta de bulai* in (15), (16) are the focal points of dispute in Chinese studies. Their nominal characterizations enable them to function as subjects as in (13), (15) and objects as in (14), (16). The publication of book and his not coming are taken as events and take nominal syntactic roles as a whole. However, as some scholars argued and we reviewed in part 2, there seems a contradiction between the nominal nature of these structures on the whole and Bloomfield's generalization about endocentric constructions. The nominal treatment of *chuban* (publish) in the structure contradicts with the fact that typical predicate modifiers or adverbs like *bu* (not), *zhongyu* (finally), *fanfu* (repeatedly) can be added before it. In (15) and (16), the predicate negator *bu* (not) is added to the so-called head of the overall nominal structure of *ta de lai* (his coming).

Instead of denying the applicability of endocentric construction theory to Mandarin Chinese or modifying the theory to better embed peculiar Chinese language features as Zhu (1984) did, we propose a re-analysis of the structures like *zhe ben shu de chuban* and *ta de bulai* as actor-action or patient-action constructions instead of subordinative (or attributive) constructions and the inserted *de* is a nominalizing infix. With this proposal, a pattern begins to emerge, which we can express in (i) and (ii):

(i) Chinese actor-action or patient-action structures like *zhe ben shu de chuban* and *ta de bulai* are exocentric constructions, and, thusly, the structures belong to the form-class of no immediate constituent.

(ii) Besides functioning as a nominalizing suffix to verbs, *de* is also a nominalizing infix to phrases, clauses, sentences or portions of sentences.

The generalization provided in (i) and (ii) can account for vast number of nominalizations beyond the lexical level. The claim that structures like *zhe ben shu de chuban* and *ta de bulai* are exocentric constructions puts an end to the long discussion on the nominalization of the so-called head verbs and the dilemma in application of endocentric

construction theory into the research of Chinese studies. In actually, *ta lai* (He comes) resembles Bloomfield's example for exocentric construction, *John ran. Ta lai*, just like *John ran*, is neither a nominative expression (like *ta* (he)), nor a finite verb expression (like *lai* (come)). Therefore, they cannot take the syntactic roles as a subject or an object directly. In *zhe ben shu de chuban*, *zhe ben shu* (this book) is the patient or outcome of *chuban* (publish) and, within the clause, it functions as the subject. Usually, we can use them in the following way,

(17) a. *zhe ben shu zhongyu chuban le*.

This CLAS book finally publish ASP.

This book was finally published.

b. *zhe ben shu de zhongyu chuban ling ren gaoping*.

This CLAS book NOM finally publish make people happy.

This book's final publication makes people happy.

With the usage of *de* as an infix, (17)a can be nominalized and function as the subject in (17)b with the verb *chuban* (publish) remains as a verb and being modified by the adverb *zhongyu* (finally).

CONCLUSION

No scholar could possibly avoid the issue of nominalization as it poses as a core challenge in the field of Chinese linguistics, no matter they hold a pronominalization view or a diametrically opposing one. The issue closely intertwines with the classification of Chinese word classes and their correspondence with syntactic roles. Starting from the observation of the theoretical as well as descriptive deficiencies in the works conducted in the past century, we addressed the issue from a functional and cognitive perspective and introduced a new concept, ontologicalization, into the study. It is shown that nominalization could be explained on different levels, with morphological changes as a sufficient but not necessary condition on the syntactic level and ontologicalization as the underlying conceptual manipulation. The proposals in this study support the analysis of structures like *zhe ben shu de chuban* (the publication of this book) and *ta de bu lai* (his not coming) as exocentric constructions and that *de* was a nominalizing infix. In line with Lu's (2013) findings, it is shown that the pervasion of zero-nominalization and ellipsis are two obvious features of Mandarin Chinese.

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