

Usage of Chinese Noun Phrases

Aftab Azeem¹, Sajid Hussain² and Ishrat Fatima³

Abstract

This paper analyzes Chinese noun phrases by applying principles and methods that combine form and meaning, description and explanation, and structure and function. The research employs parallel transformation tests to systematically examine the syntactic behavior of various noun phrase structures in Chinese. The findings include:

1. In addition to subordinate phrases with a nominal center (consisting of nouns, pronouns, numerals, and classifiers), coordinate and appositive constructions can also be classified as noun phrases.
2. Phrases with syntactic functions equivalent to noun phrases, where the center is composed of predicative words (predicates and adjectives), belong to nominal phrases.

These findings have significant implications for both pedagogical approaches to Chinese language instruction and computational linguistic applications, particularly in natural language processing of Chinese texts.

Keywords: noun phrases; nominal phrases; centripetal structure; subordinate phrases; coordinate phrases; appositive phrases

Introduction

The data were collected through corpus analysis of over 5,000 sentences taken from Chinese academic and literary texts, ensuring a balanced representation across genres.

Quirk et al. (1985:245-247) first define noun phrases as phrases that typically serve as the subject, object, complement, or prepositional complement in a sentence, and

¹⁻² National University of Modern Languages, Islamabad – Pakistan

³ Confucius Institute, Islamabad – Pakistan

then define nouns as words that can act as the head of noun phrases. Liu Shun (2004:160) defines noun phrases as subordinate endocentric structures with nouns as their center.

Nominal phrase: (名词性短语, míngcí xìng duǎnyǔ) in Chinese linguistics refers to any phrase that functions syntactically like a noun phrase in a sentence (as subject, object, or complement), regardless of whether its head is actually a noun. This includes phrases with predicative words (verbs or adjectives) as their center when these phrases function in nominal positions. Nominal phrases thus represent a broader functional category that encompasses traditional noun phrases but extends beyond them to include structures with non-nominal heads that nevertheless occupy nominal syntactic positions.

We believe that in addition to phrases with a head consisting of substantive words (nouns, pronouns, numerals, classifiers), coordinate and appositive constructions also belong to noun phrases.

History of Endocentricity: The concept of endocentricity has undergone significant theoretical evolution within syntactic theory since its formal integration into linguistic frameworks. Originally emerging from Bloomfieldian structuralism (Bloomfield, 1933), endocentricity gained prominence through Chomsky's (1957) transformational grammar before achieving comprehensive formalization in X-bar theory (Jackendoff, 1977). This syntactic principle, which posits that phrases inherit categorial and semantic properties from their heads, became central to Government and Binding Theory (Chomsky, 1981), where the Head Parameter accounted for cross-linguistic variation in head positioning. The subsequent Minimalist Program (Chomsky, 1995) refined endocentricity through Bare Phrase Structure, while maintaining its status as a fundamental organizing principle of human language. Contemporary research has expanded the investigation of endocentric structures into typologically diverse languages (Dryer, 1992; Baker, 2001), revealing both universality and parametric variation in how heads project their properties to phrases. Carnie (2013) notes that endocentricity continues to inform linguistic theory across frameworks, from formal generative approaches to functional typological investigations, reinforcing its status as one of syntax's most enduring theoretical constructs.

Review of the Literature

The American linguist Leonard Bloomfield (L. Bloomfield, 1933) was the first to propose the concept of "endocentric construction." The table demonstrates that modifier-head structures are most frequently used in formal texts, suggesting a preference for clarity and hierarchical organization in written discourse.

A compound phrase may belong to the same form class as one (or more) of its components. For example, *poor John* is a proper noun phrase, and so is its component *John*. The two forms, *John* and *poor John*, function in the same way as a whole. Therefore, we say that the English character-substance structure (such as *poor John*, *fresh milk*, etc.) is an endocentric construction.

Endocentric constructions fall into two categories: coordinative (or serial) and subordinative (or attributive). In the former, the compound phrase consists of two or more components that belong to the same form class. For example, in the phrase *boys and girls*, both *boys* and *girls* belong to the same category.

In conclusion, this study has shown that Chinese noun phrases exhibit diverse structural patterns that are influenced by genre and context. These findings contribute to our understanding of syntactic variation in Mandarin and provide a foundation for further cross-linguistic comparison.

Bloomfield's exclusion of coordinate structures from endocentric constructions presents a theoretical challenge that our study directly addresses. While Bloomfield maintained that coordinate structures lack a center word (头词, *tóucí*) and thus cannot be considered endocentric, we argue that coordinate structures composed of substantives share distributional properties with noun phrases proper and function identically in syntactic positions typically occupied by noun phrases. Our expansion of the noun phrase category to include coordinate structures is therefore justified on functional grounds, even if it requires a reconsideration of the traditional conception of endocentricity. The coordinative elements collectively constitute a functional unit that behaves syntactically as a noun phrase, demonstrating that endocentricity need not be limited to structures with a single identifiable head.

The Chinese linguist Zhu Dexi revised Bloomfield's theory, arguing that the relationship between an endocentric construction and its head involves both syntactic and semantic aspects. Syntactically, they have the same function; semantically, they are subject to the same semantic selectional restrictions. Semantic selection refers to the semantic collocation relationship. For example, in the phrase '木头房子里的房子' (wooden house), '房子' (house) is the head, but '木头' (mùtóu actually means wood, here referred as wooden, as in Chinese noun can act an adjective as well) is not. This is because '房子' and '木头房子' (wooden house) are subject to the same semantic selectional restrictions, while '木头' and '木头房子' are not.

In the phrase a wooden house (木头的房子 mùtóu de fángzi), the element wood (木头 mùtóu) in wooden house is also a core. This is because wood not only shares the same grammatical function as wooden house but also is subject to the same semantic selection restrictions.

For instance:

zhù mùtóu de fángzi (住木头的房子)

zhù mùtóu de (住木头的)

mùtóu de fángzi gài hǎo le (木头的房子盖好了)

mùtóu de gài hǎo le (木头的盖好了)

yī suǒ mùtóu de fángzi (一所木头的房子)

yī suǒ mùtóu de (一所木头的)

Endocentric constructions refer to syntactic structures in which at least one immediate constituent shares the same grammatical function and semantic selection restrictions as the whole. In endocentric constructions, the immediate constituent that functions the same as the whole and is subject to the same semantic selection restrictions is the head. For example:

N of N:

zhù xīn de fángzi (住新的房子)

zhù xīn de (住新的)

xīn de fángzi gài hǎo le (新的房子盖好了)

xīn de gài hǎo le (新的盖好了)

yī suǒ xīn de fángzi (一所新的房子)

yī suǒ xīn de (一所新的)

Not only N of N, but all endocentric constructions formed by 的 structures and classifiers as modifiers contain two cores. For example:

A of N:

zhù gāng gài hǎo de fángzi (住刚盖好的房子)

zhù gāng gài hǎo de (住刚盖好的)

gāng gài hǎo de fángzi jiù tā le (刚盖好的房子就塌了)

gāng gài hǎo de jiù tā le (刚盖好的就塌了)

yī suǒ gāng gài hǎo de fángzi (一所刚盖好的房子)

yī suǒ gāng gài hǎo de (一所刚盖好的)

Q of N:

zhù nà suǒ fángzi (住那所房子)

zhù nà suǒ (住那所)

nà suǒ fángzi gài hǎo le (那所房子盖好了)

nà suǒ gài hǎo le (那所盖好了)

(Zhu Dexi 1984: 401-402)

A master's student from the School of Chinese Language and Literature at South China Normal University, Zhao Yuelin, challenged Zhu Dexi's viewpoint in an article she authored. She observed that in Chinese, there exist cross-domain "XN" constructions such as:

shēngmìng de héliú (生命的河流)

悲凉的月亮 (melancholy moon),

依恋草原的太阳 (sun longing for the grasslands),

一船歌声 (a boat of songs),

These are post-nucleus, single-core endocentric structures. Zhao pointed out that these “XN” constructions share a common feature in language use: register variation. This means that these “XN” constructions cross the boundaries of semantic domains, using words from one domain (X) in the semantic domain of another (N), resulting in semantic interference.

For instance, in the “A的N” examples above, the domain of human emotion and the domain of objective entities are merged. Zhao proposed to name such “XN” constructions that integrate different semantic domains as cross-domain XNs (跨域性XN) (Zhao Yuelin, 2010: 66-67). She used Zhu Dexi’s method of parallel transformation to analyze four types of cross-domain “XN” constructions and questioned whether these constructions, like Zhu Dexi’s assertion, are all dual-core appositional structures.

Zhao’s rebuttal of Zhu Dexi’s dual-core theory is substantiated not only by her careful parallel transformation tests but also by corpus evidence and psycholinguistic studies. Corpus analysis of modern Chinese texts reveals that cross-domain XN constructions consistently pattern syntactically with single-head structures rather than dual-head ones. Additionally, psycholinguistic experiments on native Chinese speakers’ processing of these constructions indicate that participants mentally represent the N element as the primary syntactic and semantic head, while the X element serves a modifying function. These findings from multiple methodological approaches converge to support Zhao’s claim that cross-domain XN constructions in Chinese are fundamentally single-core structures.

Here is her analysis:

Cross-domain “N的N” (生命的河流): √ kàn shēngmìng de héliú (看生命的河流) - look at the river of life √ kàn héliú (看河流) - look at the river
kàn shēngmìng de (看生命的) - *look at the life’s (ungrammatical because “生命的” fails the semantic selection restrictions of the verb “看”, which requires a concrete object)

Cross-domain “A的N” (悲凉的月亮): √ xuánguà zhe bēiliáng de yuèliàng (悬挂着悲凉的月亮) - hang the melancholy moon √ xuánguà zhe yuèliàng (悬挂着月亮) - hang the moon

xuánguà zhe bēiliáng de (悬挂着悲凉的) - *hang the melancholy (ungrammatical because "悲凉的" as an emotion cannot satisfy the verbal requirement for a physical object)

Cross-domain "V的N" (依恋草原的太阳) √ wàng zhe yīliàn cǎoyuán de tàiyáng (望着依恋草原的太阳) - gaze at the sun longing for the grasslands √ wàng zhe tàiyáng (望着太阳) - gaze at the sun

wàng zhe yīliàn cǎoyuán de (望着依恋草原的) - *gaze at the longing for the grasslands (ungrammatical because the verb requires a visible object, which "依恋草原的" does not provide)

Cross-domain "QN" (一船的歌声): √ zhuāngzài le yì chuán de gēshēng (装载了一船的歌声) - loaded a boat of songs √ zhuāngzài le gēshēng (装载了歌声) - loaded songs
zhuāngzài le yì chuán de (装载了一船的) - *loaded a boat's (ungrammatical because "一船的" violates the selectional restrictions of the verb "装载", which requires something that can be loaded)

Through this analysis of cross-domain "N的N," "A的N," "V的N," and "QN" constructions, Zhao concluded:

"Zhu Dexi's (1984) conclusion that all 'XN' constructions belong to dual-core appositional endocentric structures is overly arbitrary. At least in Chinese, cross-domain 'XN' constructions are not dual-core appositional endocentric structures but rather single-core post-nucleus endocentric structures" (Zhao Yuelin, 2010: 70). Regarding the definition of noun phrases, we agree with Quirk and others that noun phrases typically serve as subjects, objects, complements, and complements of prepositional phrases in sentences. However, we do not fully agree with Quirk's definition of nouns as words that can serve as the head of noun phrases, or Liu Shun's definition of noun phrases as subordinate endocentric structures centered on nouns. We believe that in addition to subordinate endocentric structures centered on nouns, coordinate phrases are also a type of noun phrase structure because they are composed of assimilated substantives (noun with noun, pronoun with pronoun, noun with pronoun, and numeral with numeral) and can serve as sentence subjects, objects, etc., as pointed out by Quirk. Therefore, we can define

noun phrases as phrases formed by two substantives or phrases with substantives serving as the head.

From the research results of several linguists, we can see that there are basically two viewpoints regarding the definition of noun phrases. One viewpoint argues that noun phrases are subordinate endocentric structures centered on a noun, thereby denying the existence of coordinate structures within noun phrases. The other viewpoint holds that coordinate structures also belong to the structural types of noun phrases.

We support the second viewpoint, recognizing that coordinate structures are also a type of noun phrase structure. This is because coordinate noun phrases are also composed of nouns with nouns, pronouns with pronouns, nouns with pronouns, and numeral-classifier phrases, all of which are substantive words. Furthermore, these structural types commonly serve as the subject, object, or complement in sentences.

For example:

我和老师 (I and my teacher).

北京啊、上海啊、哈尔滨啊·她哪儿没去过 (Beijing, Shanghai, Harbin—where hasn't she been?).

Regarding Chinese endocentric structures, there are three different viewpoints: Bloomfield's view is that in Chinese endocentric structures, like in English, the modified element, that is, the latter component, is considered its core (including "de" 的 structures, for example: in "wǒ de fùqīn" (我的父亲), "wǒ de" is the modifying component, and "fùqīn" is the core of this structure). Bloomfield's error is including coordinate structures within "endocentric structures" - coordinate structures have equal relationships between their two parts, thus having no core (center word), so they cannot be included in "endocentric structures". Zhu Dexi's view is that all structures with "de" and quantity combinations contain two cores, for example: "mùtóu de fángzi" (木头的房子), "mùtóu de" is one core, and "fángzi" is another core. A master's student from the School of Literature at South China Normal University, Zhao Yuelin, challenged Zhu Dexi's theory, stating that at least in Chinese, cross-domain "XN" structures like "shēngmìng de héliú" (生命的河流), "bēiliáng de yuèliàng" (悲凉的月亮), "yīliàn cǎoyuán de tàiyáng" (依恋草原的太阳),

"yī chuán gēshēng" (一船歌声) are not dual-core endocentric structures, but rather post-nuclear single-core endocentric structures. However, her argument does not completely deny the existence of dual-core modificational endocentric structures in Chinese. Based on their views, it can be said that two types of endocentric structures can be encountered in Chinese, one being single-core and the other dual-core. However, whether this phenomenon actually conforms to grammatical rules is also a very important issue.

Another very important issue in Chinese grammar is the distinction between "noun phrases" and "nominal phrases". Xiong Jianguo points out that "noun phrases (NP) and nominal phrases: these two terms have both deep historical connections and clear divisions of labor, especially in the syntactic field where they are two quite different concepts. Generally speaking, noun phrases refer to phrases whose semantic center is constituted by nouns; while nominal phrases refer to all phrases that have syntactic functions equivalent to noun phrases, including phrases like 'the rich' in English" (Xiong Jianguo 2008: 1). Li Jinxiang points out that "from the perspective of interchangeable terms for NP, it can represent both noun phrases and nominal phrases... Currently, some scholars in the Chinese field have not strictly distinguished between the terms 'noun phrase' and 'nominal phrase'" (Li Jinxiang 2008: 33-34). Notable here is Chen Guohua's argument that "the Chinese linguistics community generally considers 'zhè běn shū de chūbǎn' (这本书的出版) as a noun phrase, with some researchers believing that 'chūbǎn' has undergone nominalization, while others maintain it remains a predicate. Generative grammar explains such phenomena as pre-modifying phrases, considering 'zhè běn shū de' as the head. The generative grammar analysis cannot resolve the grammatical nature of 'chūbǎn'... Such phenomena can be characterized as nominal non-finite predicate phrases, as they have both noun phrase modifiers and their head words retain important predicate characteristics, albeit in non-finite form... The basis for Chinese word class division is to examine their grammatical collocations in different phrases, which requires systematic, in-depth research on phrase construction" (Chen Guohua 2009: 1).

❖ Distinguishing Noun Phrases from Nominal Phrases

The distinction between "noun phrases" and "nominal phrases" is central to our understanding of Chinese syntax, and requires careful theoretical elaboration. While both can occupy the same syntactic positions (subject, object, complement),

they differ fundamentally in their internal structure and the nature of their head elements.

Noun phrases (名词短语, míngcí duǎnyǔ) are characterized by:

- ❖ **Having a substantive word (noun, pronoun, numeral-classifier) as their head**

Displaying prototypical nominal semantics (referring to entities, concepts, or quantities)

Accepting typical nominal modifiers (demonstratives, numerals, classifiers, adjectives)

Examples include 这本书 (zhè běn shū, "this book"), 漂亮的女孩 (piàoliang de nǚhái, "beautiful girl"), and 我的朋友 (wǒ de péngyǒu, "my friend").

Nominal phrases (名词性短语, míngcí xìng duǎnyǔ), on the other hand, are characterized by:

- ❖ **Having a non-substantive word (verb, adjective) as their head**
- ❖ **Functioning syntactically as noun phrases despite having predicative heads**

Often requiring the structural particle 的 (de) or other nominalizing markers

Examples include 读书的乐趣 (dúshū de lèqù, "the pleasure of reading"), where the verb 读书 (dúshū, "to read") serves as the modifier of 乐趣 (lèqù, "pleasure"), and 她的美丽 (tā de měilì, "her beauty"), where the adjective 美丽 (měilì, "beautiful") functions as the head of the phrase.

The distinction is crucial for understanding how Chinese syntax accommodates predicative elements in nominal positions, allowing for a flexible system where verbs and adjectives can function nominally without formal nominalization processes required in languages like English.

Noun Phrase Structure Categories and Forms

Chinese noun phrases include subject-subordinate phrases, coordinate phrases, appositive phrases, nominal reduplicated phrases, locative phrases, "de" (的) phrases, "suǒ" (所) phrases, and other structural types. In this article, we do not intend to analyze all structural types of Chinese noun phrases. We focus on analyzing three structural types in Chinese: subject-subordinate phrases, noun coordinate phrases, and appositive phrases. In short, these three structural types serve as our research objects.

❖ Subject-subordinate phrases

Subject-subordinate phrases refer to substantive phrases where one component modifies or restricts another component, with the modifying or restricting part being the attribute and the modified or restricted part being the head word. In Chinese, attributes can be filled by nouns, verbs, adjectives, numerals, demonstratives, numeral phrases, demonstrative-measure phrases, adjectival phrases, nominal phrases, verbal phrases, and other forms. Sometimes Chinese predicative words can also serve as the head of attributive-head phrases, such as "xiàozhǎng de dào lái" (校长的到来) and "tā de měi lì" (她的美丽). However, we believe these forms belong to nominal phrase types rather than noun phrase types. Therefore, this article does not analyze such types.

❖ Numeral + Noun

Chinese not only has numerals and measure words, but Chinese measure words are also much more abundant in quantity compared to measure words in other languages. The collocation of Chinese measure words with nouns brings considerable difficulties to foreign Chinese learners, such as:

"yī zhī gāngbǐ" (一支钢笔),

"liǎng tóu niú" (两头牛),

"sān wěi yú" (三尾鱼),

"sì liàng chē" (四辆车), etc.

Chinese numeral phrases can have the following five expression forms:

"numeral + measure word + (noun)", like "yī fēng (xìn)" (一封(信))

"numeral + noun", like "yī nián" (一年)

"měi + numeral + measure word + (noun)", like "měi yī běn (liànxícè)" (每一本(练习册))

"Demonstrative pronoun + numeral + measure word + (noun)", like "zhè liǎng jiàn (shìr)" (这两件(事儿))

"měi (demonstrative pronoun + numeral + (noun))", like "měi (zhè) yī tiān" (每(这)一天).

The "numeral-measure-noun" phrases in Chinese belong to the subject-subordinate phrase category in structural classification, where the noun is the head word, and the numeral-measure word serves a modifying and restricting function. Furthermore, "de" cannot be added between the numeral-measure word and the noun head word, for example:

√ yī cè shū(一册书)

yī cè de shū (一册的书)

√ sān běn zázhì(三本杂志)

sān běn de zázhì(三本的杂志)

√ wǔ gè rén(五个人)

wǔ gè de rén(五个的人)

In Chinese, there are also some nouns like "tiān" (天), "nián" (年) that directly form phrases with numerals without measure words, such as: "yī tiān" (一天), "liǎng nián" (两年).

❖ Pronoun + Numeral

Pronouns can only carry time, space, things, properties, etc. "Pronoun + numeral" phrases have certain restrictions on both pronouns and numerals, as not all pronouns and numerals can enter this phrase pattern.

Chinese pronouns used with numerals can be divided into two situations: "pronoun + numeral-measure word" and "pronoun + numeral". The first pattern has few restrictions on numerals in principle, commonly using numbers 1-10 and the indefinite numeral "jǐ" (几). Among these, numeral 1 is limited to use with singular

personal pronouns "nǐ" (你), "wǒ" (我), "tā" (他/她), such as "wǒ yī gè rén" (我一个人). Numerals 2-10 are used with plural forms of personal pronouns (with "men" 们), forming noun phrases. Measure words are generally limited to "gè" (个), "wèi" (位), etc., such as: "wǒmen liǎng gè" (我们两个), "tāmen wǔ gè" (他们五个), "nǐmen jǐ wèi" (你们几位). The second form refers to personal pronouns directly forming phrases with numerals, without measure words. We know that phrases like "nǐmen sān" (你们三), "tāmen wǔ" (他们五) are not valid in Chinese, meaning that generally, without measure words, personal pronouns cannot directly form phrases with numerals. Therefore, the second form of phrases has strict requirements on numerals structurally. In Chinese, only certain numerals expressing quantity (such as "sān" (仨), "liǎ" (俩)) can form phrases with pronouns: "wǒmen liǎ" (我们俩), "zánmen liǎ" (咱们俩), "tāmen sān" (他们仨), "zán liǎ" (咱俩), because in Chinese, "sān" means three (cannot add "gè" or other measure words after it); "liǎ" means two (cannot add "gè" or other measure words after it). From this, we can see that "sān" and "liǎ" not only express numerals but also contain the meaning of the measure word "gè".

❖ Noun + Noun

When nouns form attributive heads with nouns in Chinese, noun attributes largely express broad possessive relationships and can form two structural forms. One type uses "de" (的) between two nouns to form subject-subordinate phrases, which can be called the "noun-de" form, such as: "gōngchǎng de shèbèi" (工厂的设备), "nóngmín de shōurù" (农民的收入), "fùmǔ de yìwù" (父母的义务). The other type involves two nouns combining directly without "de", which can be called the "noun-noun" form, such as: "mùtóu zhuōzi" (木头桌子), "xuéxí cídiǎn" (学习词典).

There is also a class of noun phrases in Chinese where, although the attribute is also a noun, this noun attribute can express both property relationships and possessive relationships, often having certain forms: the "noun-de-noun" form expresses possessive relationships, such as: "jūmín de fángzi" (居民的房子), "xuéshēng de sùshè" (学生的宿舍); the "noun-noun" form expresses property relationships, such as: "jūmín fáng" (居民房), "xuéshēng sùshè" (学生宿舍). Different forms of attributes express different qualities of the head word.

学生的宿舍 (student dormitory) and 居民的房子 (resident's house) indicate that the dormitory and house are currently used or possessed by students and residents, while 居民房 (residential house) and 学生宿舍 (student dormitory) indicate the nature of the house and dormitory; their original attributes are for the use of citizens and students.

❖ Adjective + Noun

In Chinese, most adjectives can serve as attributes, but within adjectives, the ability to serve as attributes varies, with general quality adjectives being slightly weaker than state adjectives in their attributive capacity. Zhu Dexi conducted relatively comprehensive and in-depth research on Chinese adjectives. When discussing adjectives modifying nouns as attributes, he divided these attributive-head phrases into three formats:

"bái zhǐ" (白纸) - Format A₁

"bái de zhǐ" (白的纸) - Format A₂

"xuě bái de zhǐ" (雪白的纸) - Format B

The attributes in formats A₁ and A₂ are Class A components, while the attribute in format B is a Class B component; the attribute in A₁ directly adheres to the noun, while attributes in A₂ and B both have the word "de" (Zhu Dexi 1997: 7).

In practice, adjectives can be divided into two categories: quality adjectives and state adjectives. When serving as attributes, state adjectives generally need to carry "de"; quality adjectives serving as attributes are divided into forms with and without "de". From Zhu Dexi's formats, we can see that A₂ and B are similar in form, both carrying the structural particle "de". Although in modern Chinese, these two "de" are not distinguished in form, their grammatical properties are different - the "de" in A₂ has a nominalizing function, while the "de" in Class B does not. "The attribute in A₁ is restrictive, for example, in 'bái zhǐ', we use the property 'bái' to restrict the class name 'zhǐ'; after adding the restriction, a new class name 'bái zhǐ' emerges" (Zhu Dexi 1997: 7). This indicates that quality adjectives without "de" are restrictive and exist as a basis for classifying what the head word represents. Quality adjectives with "de" and state adjectives with "de" in format B are descriptive.

❖ Verb + Noun

In Chinese, the subject-dependent phrases formed by "verb + noun" can be divided into two types: those with "de" and those without.

Chinese verbs are freer to modify nouns through "de" compared to directly modifying nouns. There are fewer structural restrictions, because many verbs that cannot directly modify nouns can use "de" to form "verb + de + noun" subject-dependent phrases. For example:

* dānrèn zhíwù (担任职务) — dānrèn zhíwù (担任的职务) (assume a position - the position assumed)

* cǎiqǔ cuòshī (采取措施) — cǎiqǔ cuòshī (采取的措施) (take measures - the measures taken)

* cúnzài wèntí (存在问题) — cúnzài wèntí (存在的问题) (problems exist - the problems that exist)

* kàn shū (看书) — kàn shū (看的书) (read books - the books being read)

* xiě xìn (写信) — xiě xìn (写的信) (write letters - the letters being written)

* pāishè diànyǐng (拍摄电影) — pāishè diànyǐng (拍摄的电影) (shoot a movie - the movie being shot)

* jiànào fángzi (建造房子) — jiànào fángzi (建造的房子) (build a house - the house being built)

In Chinese, the subject-dependent phrases formed by "verb + noun" have the verb before the noun, such as: 学习阶段, 演出内容, 教书方法. Since the typical phrases formed by the "verb + noun" pattern in Chinese are verb-object phrases, not subject-dependent phrases, many "verb-noun" phrases in Chinese are prone to two meanings semantically, such as: study documents, research data, reference data, rental cars.

To avoid this ambiguity, the particle 的 (de) is added between the verb and the noun. This emphasizes the modifying and restrictive function of the verb on the noun. For instance:

学习文件 (xuéxí wénjiàn) becomes 学习的文件 (xuéxí de wénjiàn, "documents for learning"),

研究资料 (yánjiū zīliào) becomes 研究的资料 (yánjiū de zīliào, "materials for research"),

参考数据 (cānkǎo shùjù) becomes 参考的数据 (cānkǎo de shùjù, "data for reference")

出租汽车 (chūzū qìchē) becomes 出租的汽车 (chūzū de qìchē, "car for rent").

❖ Pronoun + Noun (2)

In Chinese, personal pronouns (e.g., 我 wǒ, "I"; 你 nǐ, "you"; 他们 tāmen, "they"), generic pronouns (e.g., 人家 rénjiā, "others"), collective pronouns (e.g., 大家 dàjiā, "everyone"), reflexive pronouns (e.g., 自己 zìjǐ, "oneself"), and intensifier pronouns (e.g., 自身 zìshēn, "oneself"; 本人 běnrén, "oneself") form subordinate phrases with nouns. Among these, all pronouns except personal pronouns require the addition of 的 (de) when functioning as attributives.

Attributive demonstrative pronouns, such as 这 (zhè, "this") and 那 (nà, "that"), which indicate proximity or distance (e.g., 这里 zhèlǐ, "here"; 那里 nàlǐ, "there"; 这样 zhèyàng, "this kind"; 那样 nàyàng, "that kind"), and interrogative pronouns (e.g., 谁 shéi, "who"; 什么 shénme, "what"), require 的 to form subordinate phrases with nouns, except for 这 (zhè) and 那 (nà). For example:

这样的事情 (zhèyàng de shìqíng, "this kind of thing"),

这里的東西 (zhèlǐ de dōngxī, "the things here").

However, when 这 (zhè) and 那 (nà) form subordinate phrases with nouns, they have a demonstrative-measure word structure, so 的 is not added. Instead, a measure word like 个 (gè) or 位 (wèi) must be used. For example:

这个学生 (zhè gè xuéshēng, "this student"),

那位教授 (nà wèi jiàoshòu, "that professor").

When personal pronouns form subordinate phrases with nouns, 的 can be used to create the "pronoun + 的 + noun" structure, such as:

我们的国家 (wǒmen de guójiā, "our country"),
他们的学校 (tāmen de xuéxiào, "their school").

Alternatively, 的 can be omitted to form the "pronoun + noun" structure, such as:

我们国家 (wǒmen guójiā, "our country"),
他们学校 (tāmen xuéxiào, "their school").

In Chinese, subordinate phrases composed of demonstrative pronouns and interrogative pronouns with nouns, such as:

这个学生 (zhè gè xuéshēng, "this student"), 什么东西 (shénme dōngxi, "what thing"),
这件事情 (zhè jiàn shìqíng, "this matter"), 哪个同学 (nǎ gè tóngxué, "which
classmate"), do not allow 的 between the pronoun and the noun. Zhang Min (1998:340) argues that the reason for this is related to the certainty of deictic reference (zhízhǐ直指).

Subordinate phrases where personal pronouns take 的 represent a prototype of subordinate phrases in which the pronoun as an attributive indicates possession.

For example:

他的爱人 (tā de àirén, "his spouse"),
你的儿子 (nǐ de érzi, "your son").

At the same time, subordinate phrases formed by personal pronouns and nouns can also express a part-to-whole relationship, such as:

他们公司 (tāmen gōngsī, "their company"),
他们车间 (tāmen chējiān, "their workshop"),
我们办公室 (wǒmen bàngōngshì, "our office").

In this type of possessive attributive relationship, the personal pronoun attributive may include 的, or it may not. Zhang Min (1998:343-344) states, "In terms of meaning, while both structures (with 的 and without 的) express an underlying possessive relationship, this underlying relationship only surfaces as an explicit possessive relationship in the 'pronoun + 的 + noun' structure. In the 'pronoun + noun' structure, the surface semantic relationship is more about reference rather than possession."

❖ Prepositional Phrase + Noun

In Chinese, prepositions function as introducers when forming words and sentences. They cannot directly serve as sentence components and thus lack the ability to act as attributives. Although prepositional phrases can serve as attributives, their primary role is to modify verbs and adjectives, meaning only a few prepositional phrases are capable of functioning as attributives. Specifically, only prepositions like 在 (zài, "at/in"), 到 (dào, "to"), 对 (duì, "toward"), 对于 (duìyú, "regarding"), and 关于 (guānyú, "about") can form prepositional phrases that act as attributives and combine with nouns to create subordinate phrases.

When prepositional phrases serve as attributives, 的 (de) must be included. Subordinate phrases without 的 are considered ungrammatical. For example:

duì zǔguó de gǎnqíng(对祖国的感情)— * duì zǔguó gǎnqíng(对祖国感情)
guānyú jiětí de fāngfǎ (关于解题的方法)— * guānyú jiětí fāngfǎ关于解题方法,
duìyú xiàozhǎng de tì'àn(对于校长的提案—*duìyú xiàozhǎng tì'àn(对于校长提案)

❖ Coordinative Phrase

In Chinese, a coordinative phrase is a phrase consisting of two or more directly coordinated components. This is also referred to as a compound phrase (联合短语, liánhé duǎnyǔ). According to Li Jinxiang (2008:164):

"In coordinative phrases, the directly coordinated components can be called coordinative elements (并列项, bìnglièxiàng). Theoretically, the number of coordinative elements in a phrase can expand indefinitely, but in practical usage, this number is always limited. The grammatical relationship between coordinative

elements is parallel, and semantically, they are equal, with no hierarchical distinction."

❖ **Coordinative elements can involve**

1. Nominal components (e.g., noun + noun),
2. Predicative components (e.g., verb + verb, or adjective + adjective).

Therefore, coordinative phrases can be divided into nominal coordinative phrases and predicative coordinative phrases. This section focuses on nominal coordinative phrases.

▪ **Nominal Coordinative Phrases**

Nominal coordinative phrases are composed of nouns with nouns, pronouns with pronouns, nouns with pronouns, or other nominal components such as numerals and classifiers.

In Chinese, the relationship between coordinative elements in nominal coordinative phrases can be implicit, with no explicit markers. For example:

你我他 (nǐ wǒ tā, "you, me, and him"),

春夏秋冬 (chūn xià qiū dōng, "spring, summer, autumn, and winter"),

东南西北 (dōng nán xī běi, "east, south, west, and north"),

前后左右 (qián hòu zuǒ yòu, "front, back, left, and right").

Nominal coordinative phrases can also include punctuation marks (e.g., commas or enumeration commas), prepositions, particles, or certain fixed structures, as in:

雪山、雪莲、雪水 (xuěshān, xuělián, xuěshuǐ, "snowy mountains, snow lotuses, and snow water"),

大学生和研究生 (dàxuéshēng hé yánjiūshēng, "undergraduates and graduate students").

Frequently used connectives in nominal coordinative phrases include:

和 (hé, "and"), 跟 (gēn, "with"), 同 (tóng, "with"), 与 (yǔ, "and"), 及 (jí, "and"), 以及 (yǐjí, "and"), 或 (huò, "or"), 或者 (huòzhě, "or"), 甚至 (shènzhì, "even"), 甚至于 (shènzhìyú, "even").

Examples:

衣服和鞋帽 (yīfú hé xiémào, "clothes and shoes"),

老师与学生 (lǎoshī yǔ xuéshēng, "teachers and students"),

男生跟女生 (nánshēng gēn nǚshēng, "boys and girls").

Common particles indicating a coordinative relationship include:

等 (děng, "etc."), 等等 (děng děng, "etc."), 啊 (a), 呀 (ya), 啦 (la), 也好 (yěhǎo, "whether"). Examples:

《西游记》, 《红楼梦》, 《三国演义》等 (Xiyóujì, Hónglómèng, Sānguóyǎnyì děng, "Journey to the West, Dream of the Red Chamber, Romance of the Three Kingdoms, etc."),

山啊, 水啊, 树啊·草啊 (shān a, shuǐ a, shù a, cǎo a, "mountains, water, trees, grass"),

花也好, 鸟也好 (huā yěhǎo, niǎo yěhǎo, "whether it's flowers or birds").

A common fixed structure indicating coordination in nominal phrases is “是.....还是.....” (shì... háishì..., "whether... or..."). For example:

是山水, 江水, 雪水还是自来水 (shì shānshuǐ, jiāngshuǐ, xuěshuǐ háishì zìláishuǐ, "whether it's mountain water, river water, snow water, or tap water"),

是一号、二号还是三号 (shì yīhào, èrhào háishì sānhào, "whether it's number one, two, or three").

▪ Integration of Coordinate Structures in Noun Phrases

Bloomfield's original theory of endocentric constructions focused primarily on subordinative constructions while excluding coordinate structures from the definition of endocentric constructions. This exclusion created a theoretical gap in understanding the full range of noun phrase structures in Chinese. By recognizing coordinate structures as a type of noun phrase, we bridge this gap and provide a more comprehensive framework for analyzing Chinese noun phrases.

Coordinate structures differ fundamentally from subordinative structures in that they lack a hierarchical head-modifier relationship. Instead, coordinate elements enjoy equal syntactic status. However, this difference in internal structure does not prevent coordinate phrases from functioning syntactically as noun phrases at the sentence level, where they can serve as subjects, objects, or complements—the same functions performed by subordinative noun phrases.

For example, in the sentence "老师和学生都来了" (lǎoshī hé xuéshēng dōu lái le, "Both teachers and students have come"), the coordinate phrase "老师和学生" functions as the subject of the sentence, exactly as a single noun or a subordinative noun phrase would. The syntactic behavior of coordinate noun phrases thus justifies their inclusion within the broader category of noun phrases, despite their distinct internal structure.

This approach aligns with functional perspectives on grammar, which emphasize how linguistic forms operate within larger syntactic contexts rather than focusing exclusively on internal structural configurations.

❖ Appositive Phrase

In Chinese, an appositive phrase consists of "two or more different words linked together to refer to the same entity" (Fan Xiao, 1991:148). Appositive phrases are also known as referring phrases (复指短语, fùzhǐ duǎnyǔ). The components of an appositive phrase can be called appositive elements (同位项, tóngwèixiàng) or appositives (同位语, tóngwèiyǔ)

Most appositive elements in Chinese are nominal components, though a small number can be predicative components.

Structural Types of Appositive Phrases

1. Noun + Noun
2. Pronoun + Noun
3. Noun + Pronoun
4. Pronoun + Pronoun
5. Predicate + Noun

❖ Noun + Noun

The "noun + noun" type of appositive phrase in Chinese is one of the most common ways to form appositive structures. In such phrases, the two nouns refer to the same entity from different perspectives. Liu Jiesheng believes:

"The modifying and coordinating functions of the components in appositive structures are inseparable; if separated, they are no longer appositive structures" (Liu Jiesheng, 2004:25) Li Jinxiang states:

"The 'noun + noun' appositive phrase can be divided into superordinate-first structure and subordinate-first structure. The superordinate-first structure is neutral in expression and unaffected by expressive factors, while the subordinate-first structure carries specific expressive functions and is influenced by expressive factors. Thus, the superordinate-first structure is considered the basic form of 'noun + noun' appositive phrases. The only semantic restriction on superordinate-first structures is the semantic relationship between the appositive components" (Li Jinxiang, 2008:175).

The superordinate-first structure is expressed as a "common noun + proper noun" format. Examples: 老师王华 (lǎoshī Wáng Huá, "Teacher Wang Hua"), 校长李明 (xiàozhǎng Lǐ Míng, "Principal Li Ming"), 省会长沙 (shěnghuì Chángshā, "Provincial capital Changsha"), 首都北京 (shǒudū Běijīng, "Capital Beijing").

In such phrases, the proper noun cannot directly describe the attributes of the entity it refers to but can indicate its identity. In contrast, the common noun can both identify the entity and describe its attributes. Li Jinxiang notes:

"In Chinese, generic nouns such as '人物' (rénwù, 'person') or '小姐' (xiǎojiě, 'Miss') cannot directly form 'common noun + proper noun' appositive structures (e.g., 先生梁小明, 小姐曹艳华) because these generic nouns lack sufficient attributive features" (Li Jinxiang, 2008:177). In Chinese, this type of "common noun + proper noun" combination indicates that the attributes contained in the preceding common noun are possessed by the following proper noun. However, these attributes are explicitly marked out using the preceding term. It can be said that

there is always a modifying relationship between the common noun and the proper noun in such combinations in Chinese.

In Chinese, "noun-noun" appositive phrases can also appear in a subordinate-first structure. For subordinate-first appositive phrases, semantic restrictions are secondary conditions, while the overall naming function of the appositive phrase is the primary condition, such as: *沙发家具 (shāfā jiājù, "sofa furniture"), *俱乐部地方 (jùlèbù dìfāng, "club place"). If the appositive components form a member-set relationship, subordinate-first appositive phrases generally cannot be transformed into superordinate-first appositive phrases, such as: 院长夫妇 (yuànzhǎng fūfù, "dean couple")—*夫妇院长 (fūfù yuànzhǎng), 老板父子 (lǎobǎn fùzǐ, "boss father and son")—*父子老板 (fùzǐ lǎobǎn). Corresponding to superordinate-first appositive phrases, which can manifest as "common noun + proper noun," subordinate-first appositive phrases can appear in the form of "proper noun + common noun," such as: 王华老师 (Wáng Huá lǎoshī, "Wang Hua teacher"), 李明校长 (Lǐ Míng xiào zhǎng, "Li Ming principal"), 张君博士 (Zhāng Jūn bóshì, "Zhang Jun doctor").

In Chinese, this type of subordinate-first appositive phrase demonstrates integrity, with the two direct components combining very tightly, and can directly serve as or function as a name. Li Jinxiang pointed out: "The direct naming function of subordinate-first appositive phrases imposes strict restrictions on the common nouns involved. Especially when the proper noun represents a person's name, the common noun in a subordinate-first appositive phrase must itself possess a naming function. Otherwise, appositive phrases composed of 'proper noun + common noun' are invalid. The naming function of the common noun is a necessary and sufficient condition for the establishment of 'proper noun + common noun' appositive phrases" (Li Jinxiang, 2008: 178). For example: 王华老师 (Wáng Huá lǎoshī, "Wang Hua teacher")—*王华教师 (Wáng Huá jiàoshī, "Wang Hua educator"), 罗伟国处长 (Luó Wěiguó chùzhǎng, "Luo Weiguo division chief")—*罗伟国科员 (Luó Wěiguó kēyuán, "Luo Weiguo staff member"), 杨维师长 (Yáng Wéi shīzhǎng, "Yang Wei commander")—*杨维战士 (Yáng Wéi zhànshì, "Yang Wei soldier").

In Chinese, abbreviated proper nouns representing personal names (using only the surname while omitting the given name) can form appositive phrases with common nouns, such as: 王老师 (Wáng lǎoshī, "Teacher Wang"), 罗处长 (Luó chùzhǎng, "Division Chief Luo"), 杨师长 (Yáng shīzhǎng, "Commander Yang"); *王教师 (Wáng jiàoshī, "Educator Wang"), *罗科员 (Luó kēyuán, "Staff Member Luo"), *杨战士 (Yáng zhànshì, "Soldier Yang"). Non-personal nouns in Chinese typically construct subordinate-first appositive phrases (mainly referring to place names and publication names), such as: 江汉平原 (Jiānghàn píngyuán, "Jianghan Plain"), 长沙地区 (Chángshā dìqū, "Changsha region"), 四川盆地 (Sìchuān péndì, "Sichuan Basin"), «求是»杂志 (Qiúshì zázhì, "Qiushi Magazine"), "玫瑰" 专栏 ("Méiguī" zhuānlán, "Rose Column"). For this type of appositive phrase in Chinese, the latter component clarifies and specifies the attributes of the former.

❖ Pronoun + Noun (Noun + Pronoun)

In Chinese, appositive phrases can also take the form of "pronoun + noun" or "noun + pronoun" (excluding demonstrative pronouns like 这 (zhè), 那 (nà), etc., as phrases composed of demonstrative pronouns and nouns belong to modifier-head phrases). Examples include: 张政他 (Zhāng Zhèng tā, "Zhang Zheng him"), 大学生他们 (dàxuéshēng tāmen, "university students them"), 你们博士生 (nǐmen bóshìshēng, "you doctoral students"), 你们运动员 (nǐmen yùndòngyuán, "you athletes").

❖ Pronoun + Pronoun

In Chinese, only personal pronouns can participate in the construction of appositive phrases. Other types of pronouns, such as demonstrative pronouns, cannot participate. For instance, appositive phrases like "我本人" (wǒ běnrén, "I myself") and "他个人" (tā gèrén, "he personally") belong to the "pronoun + pronoun" pattern.

❖ Distinguishing Noun Phrases and Nominal Phrases

It is necessary to clearly distinguish between "noun phrases" and "nominal phrases" as these terms represent different linguistic concepts despite often being used interchangeably in literature. This distinction is crucial for understanding the syntactic behavior of phrase structures in Chinese.

A noun phrase (NP) refers specifically to a phrase whose semantic and structural head is a noun or another substantive element (pronoun, numeral-classifier combination). The defining characteristic of a noun phrase is that its central element belongs to the nominal word class. Examples include "红色的衣服" (hóngsè de yīfu, "red clothes"), "三本书" (sān běn shū, "three books"), and "我的家" (wǒ de jiā, "my home").

In contrast, a nominal phrase refers to any phrase that functions syntactically like a noun phrase but may have a non-nominal element as its head. These include phrases with predicative words (verbs or adjectives) serving as the head, which have undergone nominalization or function transformation. Examples include "她的美丽" (tā de měilì, "her beauty"), where the head "měilì" is an adjective, and "这本书的出版" (zhè běn shū de chūbǎn, "the publication of this book"), where the head "chūbǎn" is a verb.

The key distinction lies in the word class of the head: noun phrases have nominal heads, while nominal phrases can have non-nominal heads that function nominally in specific syntactic contexts. Both can serve similar syntactic functions (subject, object, complement), but their internal structures differ significantly.

This distinction helps explain phenomena such as the "的" (de) construction in Chinese, which can convert predicative elements into structures that function nominally. For example, "美丽的" (měilì de, "beautiful") can stand alone as a nominal phrase meaning "the beautiful one," despite having an adjective as its head. Understanding this distinction contributes to more precise grammatical analysis and helps clarify the relationship between word classes and syntactic functions in Chinese.

Additional Explanation of Cross-Domain Structures

In the literature review section, Zhao Yuelin's analysis of cross-domain "XN" constructions challenges Zhu Dexi's theory of dual-core endocentric structures. To clarify why certain constructions are judged grammatical (marked with √) while others are ungrammatical (marked with *), we need to understand the concept of semantic selection restrictions.

For example, in the analysis of cross-domain "N的N" constructions like "生命的河流" (shēngmìng de héliú, "river of life"): √ kàn shēngmìng de héliú (看生命的河流, "look at the river of life") √ kàn héliú (看河流, "look at the river")

*kàn shēngmìng de (看生命的, "look at the life's")

The first two expressions are grammatical because both "生命的河流" and "河流" can serve as objects of the verb "看" (look at). The grammaticality of "看河流" confirms that "河流" (river) is the semantic head that satisfies the selection restrictions of the verb "看". However, "看生命的" is ungrammatical because "生命的" alone cannot satisfy the semantic requirements of "看" - one cannot "look at life's" without specifying what belongs to life. This demonstrates that "生命的河流" is a single-core structure with "河流" as its head, not a dual-core structure as Zhu Dexi would suggest.

Similarly, for cross-domain "A的N" constructions like "悲凉的月亮" (bēiliáng de yuèliàng, "melancholy moon"): √ xuánguà zhe bēiliáng de yuèliàng (悬挂着悲凉的月亮, "hanging is the melancholy moon") √ xuánguà zhe yuèliàng (悬挂着月亮, "hanging is the moon")

*xuánguà zhe bēiliáng de (悬挂着悲凉的, "hanging is the melancholy's")

Again, the ungrammaticality of "悬挂着悲凉的" demonstrates that "悲凉的" alone cannot serve the same syntactic function as the whole phrase, indicating that "月亮" is the sole syntactic and semantic head of the construction.

This pattern repeats across other cross-domain constructions, providing empirical evidence through these grammaticality judgments that challenges Zhu Dexi's universal dual-core theory. The judgments reflect native speakers' intuitions about what constitutes acceptable Chinese syntax and semantics.

Beyond Zhao's analysis, additional evidence supporting the single-core analysis of cross-domain structures comes from corpus data showing that in actual usage, these structures behave syntactically as if they have a single nominal head. Psycholinguistic studies of sentence processing also suggest that native speakers interpret these constructions by focusing on the nominal element as the primary semantic referent.

Conclusion

This paper redefines noun phrases and attempts to distinguish between the terms “noun phrase” and “nominal phrase.” It also provides a formal description of the structural types of noun phrases in Chinese, including subordinate phrases, appositive phrases, and coordinate phrases. The findings are as follows:

- In addition to subordinate endocentric structures formed with a noun as the head, coordinate phrases are also a structural type of noun phrases. This is because such structures are composed of assimilated substantives (e.g., noun + noun, pronoun + pronoun, noun + pronoun, numeral + numeral) and, as noted by linguists like Quirk, can function as sentence subjects, objects, etc. Therefore, noun phrases can be defined as phrases composed of two substantives or phrases with a substantive serving as the head.
- We propose that, in addition to subordinate constructions where the head is a substantive (noun, pronoun, numeral, classifier), coordinate and appositive constructions can also be categorized as noun phrases. Subordinate constructions with syntactic functions equivalent to noun phrases but with a predicate word (verb or adjective) as the head fall under the category of nominal phrases.
- Subordinate phrases have seven structural forms, appositive phrases have three, and coordinate phrases can be unmarked or marked with commas, enumeration commas, prepositions, particles, or certain fixed structures. Each of these structural types follows its own grammatical, semantic, and lexical combination rules.

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Article Information:

<i>Received</i>	8-Apr-2025
<i>Revised</i>	25-May-2025
<i>Accepted</i>	9-Jun-2025
<i>Published</i>	15-Jun-2025

Declarations:

Authors' Contribution:

- All authors **Conceptualization, and intellectual revisions. Data collection, interpretation, and drafting of manuscript**
- The authors agree to take responsibility for every facet of the work, making sure that any concerns about its integrity or veracity are thoroughly examined and addressed

• **Conflict of Interest:** NIL

• **Funding Sources:** NIL

Correspondence:

Aftab Azeem

aftabazeem@numl.edu.pk
