Minghui Dong
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Xuri Tang (Eds.)

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A Structural and Prosodic Analysis of Trisyllabic New Words

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Abstract. The majority of Chinese new words are trisyllabic, which violates the disyllabic norm of Chinese vocabulary. This paper explores reasons underlying this phenomenon by studying the structure and prosody of the trisyllabic new words.

Keywords: new words, trisyllabic words, structure, prosody

1 Introduction

Previous studies on Chinese new words focus mainly on such aspects as their definition, structure, pragmatic analysis and so on. As for the definition, Chen (1984) argues that the four criteria for a new lexical entry include: 1) it is irreplaceable; 2) its formation fits into the language specification and social conventions; 3) it can express certain concept or thought accurately; 4) it is catchy and easily accepted. Liu (2005) proposes further that new words refer to those newly appeared and repeatedly used words, thus gradually becoming stable units in the language system. Therefore, new words are to go through the test of time. Moreover, Yang (2010) takes the public acceptance as the key point in the transition of new words into general vocabulary. Apart from this, in his view, the identification of new words also concerns language rules. Although different opinions can be observed regarding to the definition of new words, the consensus is that the key factors of defining a new word are the test of time and its stability.

With respect to the features of new words, Shen (1995) thinks that the previous arbitrary combinations of the form and meaning are constrained because the creation of new words is motivated. As a result, the meaning of a new word is unicity. Moreover, since the social life and communicative media have changed, new words, are colloquial pragmatically speaking. In terms of their structure, it is found that new words are mostly in the modifier-head structure through a statistical analysis of new words in *Xinhua Dictionary of New Word* by Zhou.

As long as a new word is stabilized and in the common use among social members, it will enter the system of general vocabulary and obey the universal rules of lexical system. As the prosodic structure of modern Chinese vocabulary is a disyllabic one (Feng 1996, 1998), the new words, as members of Chinese lexical system, are

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expected to follow suit. However, the fact is that the majority of Chinese new words are trisyllabic rather than disyllabic. Therefore, this paper analyzes the structural and prosodic features of trisyllabic new words with the purposes of explaining why trisyllabic new words take a large amount.

2 The features of Chinese new words' syllabic distribution

With new words collected in *Language Situation in China* issued by the print media center for monitoring and studying national language resource from 2011 to 2013 as the sample, this paper makes a classification of these words in term of their syllabic numbers , as shown in Table 1.

Table 1: The distribution of Chinese new word of different syllabic structure

Year	Two syllables	Three syllables	Four syllables	Five syllables	Six syllables	All
2011	85	306	115	60	4	570
2012	76	261	186	43	7	573
2013	86	161	75	17	11	350
All	247	728	376	120	22	1493

It can be seen from Table 1 that the amount of the trisyllabic new words surpasses that of new words in other syllabic structures and that the disyllabic ones are not in the majority. According to the basic conclusion of prosodic study on modern Chinese, the disyllabic words are predicted to be the dominant ones in modern Chinese (Lü 1963; Feng 1996, 1998). The fact, however, is that the trisyllabic new words, flouting the disyllabic rule, take up the advantage among new words. So, what are the underlying reasons for this phenomenon? As no satisfied explanations have been found in previous studies, this paper will make a classification, description and explanation of trisyllabic new words from 2011 to 2013 with the aim of figuring out the fundamental causes of their dominant status.

3 The structural analysis of trisyllabic new words

3.1 Five structural types of trisyllabic new words and a quantitative analysis

(1) Modifier-head structure: an example of new words in this structure is 微信圈 [*eixinquan*]*(the broadcast massages and friend's latest development in Wechat*).
(2) Coordinate structure: a new word of this type is 白富美 [*baifumei*] (*a fire-skinned and pretty good looking rich lady*).
(3) Predicative-object structure: an instance of this kind of new words is 拼同学 [*pintongxue*] *(friends-privilege-competition, young men from low-income families are sent to noble schools by their parents with the belief that classmates or friends from the elite class will help their children in the futur*e).
(4) Predicate-Complement structure: a new word of such kind is 伤不起 [*shangbuqi*] (*to be too delicate to bear a blow*).

(5) Subject-predicate structure: an instance is 习连会 [*xilianhui*] (*President Xi's meeting with the Taiwan's Kuomintang Chairman Lian Zhan).*

Those five structural types of trisyllabic new words exhibit the utmost disproportion in quantitative distribution, as shown in Table 2.

Table 2: The quantitative distribution of Chinese new words of five different structural types

Year	Modifier-head	Coordinate	Predicate-object	Predicate-compliment	Subject-predicate	All
2011	235	1	3	2	13	254
2012	191	9	3	0	3	206
2013	125	3	4	0	12	144
All	551	13	10	2	28	604

Table 2 illustrates clearly that the trisyllabic new words of the modifier-head structure take an important part among all the words at hand. There are 551 ones of such kind, accounting for almost 91%, out of a total of 604 trisyllabic new words collected. Given all this, the next section will focus on a further classification, description and interpretation of trisyllabic new words of this structure.

3.2 The structure and amount of trisyllabic new modifier-head words

3.2.1 Three kinds of trisyllabic modifier-head words

(1) Noun as the head: an example is 棱镜门 [*lengjingmen*] (*PRISM, the clandestine surveillance program under which the NSA collects internet communications from at least nine major US internet companies*).

(2) Verb as the head: a word of such kind is 空气游 [*kongqiyou*] (*trips to places of good air quality).*

(3) Adjective as the head: an instance is 火锅红 [*huoguohong*] (*a kind of food additive used to color the hotpot soup red even without pimientos).*

Table 3: The quantitative distribution of trisyllabic modifier-head words with different heads

Year	Noun as the head	Verb as the head	Adjective as the head	All
2011	205	27	3	235
2012	176	11	4	192
2013	108	16	1	125
All	489	54	8	551

3.2.2 The trisyllabic new modifier-head words with nouns as the heads

(1) [2+1] prosodic pattern

There are 374 words in the [2+1] prosodic pattern among all the trisyllabic modifier-head words with nouns as the head and they can be further divided into the following types：

A. [XX]n+[X]n: this kind of new words are those with the former two syllables as disyllabic nouns, an example of which is 蛋白族[*danbaizu*] (*a term for*

self-mockery, which refers to the urban white-collar workers who live a dull life instead of the seemingly decent life with a high salary).

B. [XX]v-o+[X]n: words of this type are those with the former two syllables forming predicate-object structures, and an example is 限奶令[*xiannailing*] (*the restrictions on mainland purchases of milk powder in Hong kong*).

C. [XX]n-v+[X]n: the former two syllables of this kind of words form verb-noun structures, an example of which is 夜淘族 [*yetaozu*] (*the group of people who do online shopping during the period from 23 p.m. to 5 a.m. in the following day*).

D. [XX]a+[X]n: words of this kind are those with the former two syllables as disyllabic adjectives and an instance is 暴力哥 [*baolige*] (*the guy who is known for paying the extensive fund to lift the stock index)*

E. [XX]a-n+[X]n: words with the former two syllables forming adjective-noun structures, an instance of which is 名表门 [*mingbiaomen*] (*the scandal about Yang Dacai, the Secretary for Work Safety Supervision of Shanxi province, who is known for his expensive timepieces worn in different occasions*).

F. [XX]ad+[X]n: the former two syllables of these words are adverbs, an example of which is 马上体 [*mashangti*] (*a blessing word in the pattern of "you will have ... soon" used in the year of horse to bless others to get what they want*).

G. [XX]ad-v+[X]n: this kind of words are those with the former two syllables forming adverbial-verb structures, and an instance is 裸跑弟 [*luopaodi*] (*a four year old boy who ran, stark naked, in the snowstorm to celebrate the new year of 2012 in New York city*).

H. [XX]conj+[X]n: the former two syllables of this type of words are conjunctions, an example of which is 如果体 [*ruguoti*] (*a semi-open construction in the pattern of "if I do not major in ..., I would like to do…", which reflects the long distance between dream and reality*).

Table 4: The quantitative distribution of different types of modifier-head nouns in the [2+1] prosodic pattern

Year	A	B	C	D	E	F	G	H	All
2011	58	62	2	6	3	2	4	2	139
2012	72	48	4	10	8	0	7	1	150
2013	32	34	8	6	4	1	0	0	85
All	162	144	14	22	15	3	11	3	374

(2) [1+2] prosodic pattern

There are 115 modifier-head nouns in the [1+2] prosodic pattern in total. They are generally combinations of monosyllabic elements that specify properties modifying the disyllabic noun-heads. For instance, 微课程 [*weikecheng*] (*microlecture, referring to the actual instructional content that is formatted for online and mobile learning using a constructivist approach)* .

A further classification can be made in terms of the parts of speech of the monosyllabic modifying element, which are as follows.

A. [X]n+[XX]n: this kind of words are those with the monosyllabic nouns modifying the disyllabic noun-heads. For example, 碳海绵 [*tanhaimian*] (*a kind of aerogels, which is the lightest object in the world*).

B. [X]a+[XX]n: words under this category are those with the monosyllabic adjectives (including distinguishing words) modifying disyllabic nouns, such as 微电影［*weidianying*] (*the short film, an original motion picture that has a running time of 40 minutes or less, including all credits*) and so on.

Table 5: The quantitative distribution of different types of modifier-head nouns in the [1+2] prosodic pattern

Year	A	B	Number in total
2011	22	44	66
2012	5	21	26
2013	9	14	23
Number in total	36	79	115

As is manifested in Table 5, the trisyllabic new words of pattern B significantly outnumber that of pattern A. It suggests that the trisyllabic new words with noun-head in the [1+2] prosodic pattern are more likely to take the form of the adjective-modifier modifying the noun-head.

3.2.3 The trisyllabic new modifier-head words with verbs as the heads

A total of 54 trisyllabic new words of the modifier-head structure with verbs as the heads are collected. In line with the foregoing analysis, they can also be classified into words in the [2+1] prosodic pattern and words in the [1+2] one.

(1) [2+1] prosodic pattern

Altogether 11 new words are collected with 4 in 2011, 1 in 2012 and 6 in 2013.

A. [XX]n+[X]v: they are words with the former two syllables as nominal structures modifying the monosyllabic verbs. There are altogether 10 words of this kind, with 4 in 2011 and 6 in 2013.

B. [XX]v-o+[X]v: this type of words are those with the former two syllables as the predicate-object structures modifying the monosyllabic verbs, such as 伤肺跑 [*shangfeipao*] (*a round-the-city race held in the city of Lanzhou regardless of the extremely poor air quality*).

Altogether only one word of such kind is found in 2012 during these three years.

(2) [1+2] prosodic pattern

One example is 微调查 [*weidiaocha*] (*network stages for the online investigations, which offer the one package service from designing, issuing and recycling questionnaire to data analysis and statistics*).

Altogether 43 new words of this kind, including 23 in 2011, 10 in 2012 and 10 in 2013, are found.

3.2.4 The trisyllabic new modifier-head words with adjectives as the heads

There are in total 8 trisyllabic new words of the modifier-head structure with adjectives as the heads, dividing into those in the [2+1] prosodic pattern and those in the [1+2] one as well.

(1) The [2+1] prosodic pattern

Altogether 6 cases are found, in which 2 are seen in 2011, 3 in 2012 and 1 in 2013.

A. [XX]n+[X]a: words of this type are those with the disyllabic nominal structure modifying the monosyllabic adjectives. The relationship between these two components is a noun-adjective one rather than a subject-predicate one. A total of 5 cases at issue are found with 2, 2 and 1 in the year of 2011, 2012 and 2013 respectively.

B. [XX]v-o+[X]a: words of this type are composed of the disyllabic predicate-object structure modifying the monosyllabic adjectives, such as 过劳肥 [*guolaofei*] (*the obesity caused by the overwork, high pressure, sleep insufficiency, etc*).

Only one instance is observed in the data.

(2) The [1+2] prosodic pattern

An example of words in this pattern is 冷浪漫 [*lenglangman*] *(to illustrate the scientific truth by the romantic language*).

There are only 2 cases in total, with one in 2011 and the other in 2012.

3.3 The structure and amount of trisyllabic new words of coordinate structure (13 cases altogether)

Trisyllabic new words of such kind of are mostly adjectives or verbs.

(1) Adjectives: trisyllabic new words, like *baifumei*, are adjectives and 12 instances of this kind are found in the data.

(2) Verbs: only one instance of the verbal nature is seen in the data and it is 调惠上 [*tiaohuishang*] (*the activities carried out under the guidance of the spirits of the twelfth plenum of the ninth Central Committee of the Communist Part of China to adjust the industrial structure, improve people's livelihood and promote economic development*).

3.4 The structure and amount of trisyllabic new predicate-object words

Only a few trisyllabic new words of such kind are observed, 10 in total. For instance, 包小姐 [*baoxiaojie*] (*small advertisements of beauties posted in the street corners to defraud money*).

3.5 The structure and amount of trisyllabic new predicate-complement words

Altogether only two such new words are found. They are *shangbuqi* and *shangdeqi*.

4 Analysis and discussion

4.1 The features of Chinese new words

（1） The trisyllabic ones are dominate in number among Chinese new words of different syllabic structures.
（2） What take up the vast majority among these trisyllabic new words are those of the modifier-head structure. To be more specific, most of them are words with nouns as the heads.
（3） The trisyllabic new words in the [2+1] prosodic pattern outnumber significantly those in the [1+2] prosodic pattern.
（4） As to the structure of words in the [2+1] prosodic pattern, forms of the former two syllables are multiple although they are for the most part nouns.
（5） As to the structure of words in the [1+2] prosodic pattern, the initial syllables generally specify properties while the latter two syllables designate discrete objects or events.

4.2 The analysis of trisyllabic new words in Chinese language

The foregoing features are generalized on the basis of the observation of the data in section 3, from which some further inferences can be made and are listed as follows.

(1) The formation of trisyllabic words is unstable, which turns out to be one significant feature of the new word formation.

In the prosodic system of Chinese language, the disyllables are the most stable ones. Four syllables are composed of two disyllables, thus manifesting the feature of balance. However, the combination of trisyllabic foots, in addition to the parallel [1+1+1] prosodic pattern, have to adopt either the [1+2] prosodic pattern or the [2+1] prosodic pattern. No matter which pattern is chosen, the imbalance is always shown. This kind of imbalance makes words unstable if it is involved in the word formation because these words are in the transition either to disyllables or to phrases. In short, the trisyllabic new words are always in such kind of instability.

(2) The rhythmical differences in various types of trisyllabic word reflect the colloquial feature of new word.

Another feature of the trisyllabic formation of words is colloquial. New words are originally created to represent new things and they are made up from the existing materials in language. Therefore, their acceptability and interestingness are taken as of high value by language users. Although some new words are used with quotes when appearing in newspapers, they are still colloquial in nature.

(3) The trisyllabic new words exhibit the features of nouns.

In light of the statistical analysis above, it is found that the majority of trisyllabic new words are with nouns as the heads while only a few are verb-headed. As a matter of fact, a deeper investigation reveals that these verb-headed trisyllabic words also have the nominal features. For example, *diaocha* in *weidiaocha* still manifest features of nouns. This can be proved by their nominal usages in phrases such as 做了一项调查 [*zuole yixiang diaocha*] (*to make a survey*). Therefore, it is claimed that the

verb-headed trisyllabic words in the [1+2] prosodic pattern, like *weidiaocha*, still have features of nouns.

(4) The trisyllabic new words in the [2+1] prosodic pattern have nominal features while those in the [1+2] prosodic pattern are compounds of adjective-noun structures.

The general rule of Chinese trisyllables is that those in the [2+1] prosodic pattern end up as words while those in the [1+2] one as phrases or sentences. Among the new words, those adhering to the [2+1] prosodic pattern are the majority and those in other patterns, as the minority, all have the semantic characteristic of "attributes+ object/event". In other words, the former monosyllables, such as 伪 *wei* in伪基站 *weijizhan* tends to be qualitative adjectives or distinguishing words. Apart from this, some monosyllabic nouns can denote properties as well. This special kind of usage is more likely to be a feature of qualitative words rather than that of common nouns. In consequence, it is assumed that the trisyllabic new words in the [1+2] prosodic pattern are compounds of the adjectives-noun structure.

5 Conclusion

As vocabulary with a high degree of colloquialism, Chinese new words are characterized by their rhythmical differences, which are frequently observed in the trisyllabic word formation. As a result, the vast majority of Chinese new words are trisyllabic. Both new words in the [2+1] prosodic pattern, as in the case of the combination a monosyllable noun and a disyllable one, and those in the [1+2] prosodic pattern, as in the case of the monosyllabic adjective modifying the disyllabic noun, can be realized as trisyllabic nouns.

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