

On the Interaction Between the Structure and the Prosody of Chinese 1 + 3 Idioms

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Abstract. Most four-syllable Chinese idioms are in the structure of first two syllables sharing inter-relationship and the other two syllables sharing idiomatic structural interaction (thereafter, 2 + 2 structure), while some asymmetry idioms mainly refer to those with the first one syllable working independently and the other three syllables expressing idiomatic relation (thereafter 1 + 3 structure). It is interesting that the latter can also be transferred to 2 + 2 structure once affected by the prosody. In this paper, under the related principles of prosodic morphology and prosodic syntax, idiomatic structural analyses are made on 1 + 3 structure, which syntactically cover the structure of adverbial-verb, subject-predicator, verb-object, verb-complement and adjective-complement, to explore how they can be transformed to 2 + 2 structure in prosody and what will be the aftermath of this transformation.

Keywords: 1 + 3 asymmetry idioms · Prosodic morphology · Prosodic syntax · Reanalysis

1 Introduction

Chinese idioms are mainly extracted from ancient cultural classics and poems. These idioms can be summaries of the historical facts, narration of ancient wars, significant plots of legendary stories, extracts from articles and poetry implications, or just folk tales. Endowed with these cultural traits and historical connotations, Chinese idioms can be settled down in a brief and fixed way, which, together with their harmonious prosody, convey diverse language information.

In most Chinese idioms, the first two words dependently relate while the other two words work in prosody, as well as in structure, such as 铜墙铁壁 [*tong qiang tie bi*](*bastion of iron: impregnable fortress*), 干柴烈火 [*gan chai lie huo*](*(like) a blazing fire and dry wood*). Feng (2009) pointed out, in an analysis to the prosody of Chinese idioms, that in the prosody many Chinese idioms are in “weak-strong-weak-strong” mode, such as 守株待兔 [*shou zhu dai tu*](*stand by a tree stump waiting for a hare*) (figure 1). However, it can be figured out that some idioms are not in the structure of 2+2 independently, but they are in 2+2 prosodic structure, such as 一衣带水 [*yi yi dai shui*](*be joined by a strip of water*). Therefore there are conflicts between structure and prosody. How to solve these conflicts is the focus of this thesis.

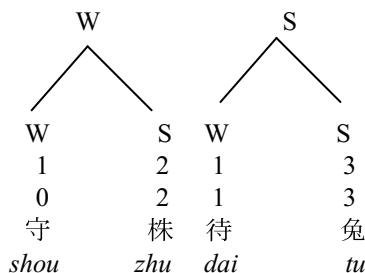


Fig. 1. the stress structure of the 守株待兔[shou zhu dai tu](stand by a tree stump waiting for a hare)

2 Literature Review

Shi(1995) focused on asymmetry idioms. Phonological prosody of 1+3 structures and 3+1 structures were discussed in his essay. He made a further analysis and pointed out that most Chinese idioms with four syllables are in the form of 2+2 prosodic structure, even though some idioms are structurally 1+3, such as 好为人师[*hao wei ren shi*](*be fond of teaching others*), 遥相呼应[*yao xiang hu ying*](*echo each other at a distance*), 学以致用[*xue yi zhi yong*](*learn to practise*), 掩人耳目[*yan ren er mu*](*deceive the public*), 成人之美[*cheng ren zhi mei*](*aid sb. in doing a good deed*). Main reason for this is that the last two syllables reached a consensus in structures and prosody; and worked together in unity, so that the second syllable could do nothing but attach the first syllable to form a prosodic word (thereafter, PrWd). Namely, the last two syllables firstly form a PrWd, whereas the other two syllables are compelled to form another PrWd.

Centering on 1+3 and 3+1 phonetic segments of idioms under the structure of verb-objective and adjective-complement, Ju (1995) pointed out that the middle part among the four syllables plays a pivotal role in phonetic combination. When components of the middle part are disyllabic, which is closely related to each other in meaning, the phonetic combination for verb-objective structure will be 1+3, while that of adjective-complement will be 3+1. Whereas, when the middle part is monosyllabic, the phonetic segment for most idioms with four syllables will be 2+2.

Feng (2009) demonstrated that all standard PrWds are in two syllables, so the combination of standard PrWds would definitely create the “case” for four syllables. Therefore, the most common form would be 2+2. The “case” originated from four syllabic forms and is derived from Chinese prosodic system. Owing to this, all the compound prosodic words just show two parts independently, and these two parts form an interdependent relationship instead of individual structures. Combination of two feet leads to the fact that even though there are two different parts, they are united. Besides phonetic stresses of these four words, merging them is simply a language description of “though different but united”.

Feng also found out that some four-syllable structures beyond the form of 2+2, such as 一衣帶水[yi yi dai shui](*be joined by a strip of water*), 狐假虎威[hu jia hu wei](*bully people by flaunting one's powerful connections*), 井底之蛙[jing di zhi wa](*a person with a limited outlook*), are still in 2+2 prosodic structures, and these phrases have been lexicalized because of the effect of “prosody over syntax”, in which phrases gave away their prosodic structures corresponding to syntax and adopted the prosodic structure and stressing model of the compound prosodic words. That is to say, these phrases ignored syntactic rules and respond to prosody, changing into compound prosodic words. Therefore, they also accord with the stressing model showed in Figure 1.

It can be seen that some scholars have noticed that Chinese idioms are not symmetric, and tried to explain the reasons, which is especially obvious in Feng’s (2009) research. The key point for this asymmetry lies in “prosody”. Prosody leads to the “reanalysis” of sentence patterns of these four-syllabic structures. However, scholars did not give detailed descriptions and explanations to these questions: how different idioms with 1+3 structures should trigger the “reanalysis” of sentence patterns under the effects of prosody; at what aspects prosody can make a “reanalysis”; and what kind of “reanalysis” prosody can trigger. Based on these literature reviews, both quantitative and qualitative ways will be introduced to give a detail analysis on the role played by prosody in asymmetric idioms, and to explain its reason. 771 idioms with 1+3 structure, coming from *Dictionary of Idioms*, are categorized into adverb-verb, subject-predicator, verb-object, verb-complement and adjective-complement.

3 Distribution and Numbers of Chinese Idioms with 1+3 Structure

3.1 General Distribution

Dictionary of Idioms issued by the Commercial Press was selected as object of the research. Firstly, syllabic numbers of these idioms were calculated and the results are followed.

Table 1. Syllabic numbers and distribution of these Chinese idioms

Syllable	3	4	5	6	7	8	9	10	11	12	13	14	Total
Number	20	10778	132	115	96	164	6	16	1	3	0	1	11332
Percent (%)	0.18	95.11	1.16	1.01	0.85	1.45	0.05	0.14	0.01	0.03	0.00	0.01	100

Among these 11,332 idioms, four-syllable idioms take up 10,778, which is overwhelmingly (more than 95%) dominant in quantity. This also accords with our language sense. Among these four-syllable idioms, 771 idioms are not symmetric, taking up 7.2%, and their structures are as follows:

- (1a) adverb-complement: 饱经风霜[bao jing feng shuang](have experienced years of wind and frost)
 (1b) subject-predicator: 鹤立鸡群[he li ji qun](stand head and shoulders above others)
 (1c) verb-object: 乘人之危[cheng ren zhi wei](take advantage of others' difficulties)
 (1d) verb-complement: 视若草芥[shi ruo cao jie](to regard as worthless)
 (1e) adjective-complement: 高不可攀[gao bu ke pan](too high to be reached)
 (1f) coordination and others: 勇而无谋[yong er wu mou](be brave but have no plans)

The table below shows the numbers and percentages of these idioms.

Table 2. Number and percentage of idioms with 1+3 structure

Type	(1a)	(1b)	(1c)	(1d)	(1e)	(1f)	Total
Number	264	298	58	27	75	49	771
Percent	34.2%	38.7%	7.5%	3.5%	9.7%	6.4%	100.0%

3.2 Analysis of Idioms with 1+3 Structure

3.2.1 Adverb-verb amid this type, the most common adverbs are: 大[da](big), 别[bie](else), 独[du](unique), 各[ge](every), 一[yi](any), 久[jiu](long), 饱[bao](enough), 杳[yao](remote). They have appeared more than 5 times. For example:

- (2a) 大[da](big): 大动干戈[da dong gan ge](get into a fight)
 (2b) 别[bie](else): 别具匠心[bie ju jiang xin](show ingenuity)
 (2c) 独[du](unique): 独树一帜[du shu yi zhi](fly one's own colors)
 (2d) 各[ge](every): 各持己见[ge chi ji jian](each sticks to his own view)
 (2e) 一[yi](any): 一无所知[yi wu suo zhi](know nothing at all)
 (2f) 久[jiu](long): 久经沙场[jiu jing sha chang](experience battlefield for a long time for a long time)
 (2g) 饱[bao](enough): 饱经沧桑[bao jing cang sang](have seen much of the changes in human life)
 (2h) 杳[yao](remote): 杳无音信[yao wu yin xin](not heard from ... at all)

Table 3. Type and number of adverbs in adverb-verb idioms with 1+3 structure

Type	(2a)	(2b)	(2c)	(2d)	(2e)	(2f)	(2g)	(2h)	Subtotal	Total
Number	23	16	15	12	10	7	5	5	93	264
Percent	8.7%	6.1%	5.7%	4.5%	3.8%	2.7%	1.9%	1.9%	35.2%	100.0%

3.2.2 Subject-predicator: Idioms with 1+3 structure under this category can be divided into the following six types. (Thereafter, σ is monosyllable, $\sigma\sigma$ is disyllable).

- (3a) [[NP] σ +[[V] σ +[[NP] $\sigma\sigma$]: (1+(1+2)), such as 将遇良才[jiang yu liang cai](find one's match)

- (3b) [[NP]σ+[[Adv]σ+[VP]σσ]: (1+(1+2)), such as 盜亦有道 [*dao yi you dao*](*there is honor among thieves*)
 (3c) [[NP]σ+[[Aux]σ+[VP]σσ]: (1+(1+2)), such as 門可羅雀 [*men ke luo que*](*birds can be caught by a net at the door -- a deserted house*)
 (3d) [[NP]σ+[[Prep]σ+[NP]σ]+[VP]σ]: (1+(2+1)), such as 病从口入 [*bing cong kou ru*](*diligence is the means by which one makes up for one's dullness*)
 (3e) [NP]σ+[[V]σ+[PP]σ]: (1+(1+2)), such as 青出于藍 [*qing chu yu lan*](*green comes from blue but better than blue (surpass one's master or teacher in learning)*)
 (3f) others: such as 時不我待 [*shi bu wo dai*](*time and tide wait for no man*)

Table 4. Type and number of subject-predicator idioms with 1+3 structure

Type	(3a)	(3b)	(3c)	(3d)	(3e)	(3f)	Total
Number	125	132	10	13	4	14	298
Percent	41.9%	44.3%	3.4%	4.4%	1.3%	4.7%	100.0%

3.2.3 Verb-object idioms of this category with 1+3 structure can be divided into the following five types:

- (4a) [V]σ+[NP1]σ+[NP2]σσ: (1+1+2), such as 傍人門戶 [*bang ren men hu*](*rely on sb. for a living*)
 (4b) [V]σ+[NP]σσσ: (1+3), such as 乘人之危 [*cheng ren zhi wei*](*take advantage of others' difficulties*)
 (4c) [[V]σ+[[V]σ+[NP]σσ]: (1+(1+2)), such as 好為人師 [*hao wei ren shi*](*be fond of teaching others*)
 (4d) [[V]σ+[[NP]σ+[VP]σσ]: (1+(1+2)), such as 如虎添翼 [*ru hu tian yi*](*just like adding wings to a tiger*)
 (4e) [[V]σ+[[NP]σσ+[VP]σ]: (1+(2+1)), such as 如鳥獸散 [*ru niao shou san*](*scatter like birds or wild animals*)

Table 5. Type and number of verb-object idioms with 1+3 structure

Type	(4a)	(4b)	(4c)	(4d)	(4e)	Total
Number	8	8	27	14	1	58
Percent	13.8%	13.8%	46.6%	24.1%	1.7%	100.0%

3.2.4 Verb-complement idioms with 1+3 structure under this category are divided into seven different types. These are as follows:

- (5a) [[V]σ[于[NP]σσ]: 安于現狀 [*an yu xian zhuang*](*be satisfied with the existing state of affairs and reluctant to move forward*)
 (5b) [[V]σ[若[NP]σσ]: 奉若神明 [*feng ruo shen ming*](*revere sth. as sacred*)
 (5c) [[V]σ[如[NP]σσ]: 視如草芥 [*shi ru cao jie*](*to regard as worthless*)
 (5d) [[V]σ[以[VP]σσ]: 學以致用 [*xue yi zhi yong*](*learn in order to practice*)
 (5e) [[V]σ[不[VP]σσ]: 愛不釋手 [*ai bu shi shou*](*like(love) sth. so much that one cannot bear to part with it*)

- (5f) [[V]σ[无[NP]σσ]]: 查无实据[*cha wu shi ju*](*it has been found that the report is not substantiated by facts*)
 (5g) [[V]σ[为[NP]σσ]]: 奉为楷模[*feng wei kai mo*](*hold up as a model*)

Table 6. Type and number of verb-complement idioms with 1+3 structure

Type	(5a)	(5b)	(5c)	(5d)	(5e)	(5f)	(5g)	Total
Number	4	6	4	3	6	1	3	27
Percent	14.8%	22.2%	14.8%	11.1%	22.2%	3.7%	11.1%	100.0%

3.2.5 Adjective-complement idioms with 1+3 structure under this category have been divided into the following types:

- (6a) [[A]σ[不[VP]σσ]]: 安不忘危[*an bu wang wei*](*never relax your vigilance while you live in peace*)
 (6b) [[A]σ[如[NP]σσ]]: 安如磐石[*an ru pan shi*](*be as firm (solid) as a rock*)
 (6c) [[A]σ[若[NP]σσ]]: 呆若木鸡[*dai ruo mu ji*](*dumb as a wooden chicken*)
 (6d) [[A]σ[无[NP]σσ]]: 暗无天日[*an wu tian ri*](*complete darkness*)
 (6e) [[A]σ[以[VP]σσ]]: 乐以忘忧[*le yi wang you*](*seek pleasure in order to free oneself from care*)
 (6f) [[A]σ[于[NP]σσ]]: 老于世故[*lao yu shi gu*](*have seen much of the world*)
 (6g) others: 富甲一方[*fu jia yi fang*](*one of the richest*)

Table 7. Type and number of adjective-complement idioms with 1+3 structure

Type	(6a)	(6b)	(6c)	(6d)	(6e)	(6f)	(6g)	Total
Number	34	16	10	5	3	2	5	75
Percent	45.3%	21.3%	13.3%	6.7%	4.0%	2.7%	6.7%	100.0%

4 The Reanalysis of 1+3 Idioms Under Prosodic Restriction

4.1 The Reanalysis of Adverb-Verb Idioms with 1+3 Structure

For adverb-verb idiomatic expressions, the language structure is coherent. As it shows in figure 2, a three-syllable VP, which is made up of a one-syllable Verb and two-syllable NP, is modified by Adverb. From figure 2, it is noticeable that Adverbial expressions are mostly those parts that cannot be used by themselves under the rules of prosody such as 饱[*bao*](*enough*). They are the special parts in terms of “syntactic freedom and prosodic relation”. Feng (2006) and Huang (2012), did qualitative research and quantitative research respectively, and postulated that sentence parts like the above mentioned need to be matched with one-syllable parts so as to form “even” syllables that make sense. That is what we called “Embedded Compound Monosyllabic Morpheme (thereafter, ECMM). Therefore, being driven by prosody, the 1+3 structure has changed the position of verbs and the re-analysis of 2+2 has been done under standard prosodic restriction.

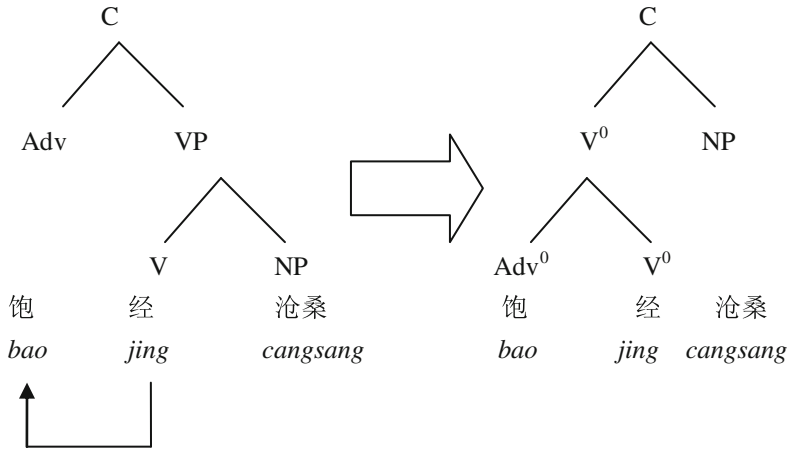


Fig. 2. the reanalysis of the adverb-verb idioms with 1+3 structure

4.2 Re-analyses of Subject Predicate Idioms with 1+3 Structure

4.2.1 Prosodic analysis of subject-predicate idioms with 1+3 structure: The inside structure of subject-predicate idioms with 1+3 structure is relatively complicated. (3a) structure above takes a large proportion and its main feature is one-syllable subject which is followed by three-syllable VP that is made up of one-syllable V and two-syllable NP, as it's being shown in the figure below.

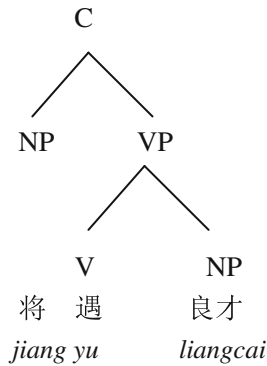


Fig. 3. structure of the idiom 将遇良才 [jiang yu liang cai] (find one's match)

Let's take a look at V-O structure. Wang (2000) has studied the fundamental differences among three-character metric words. They are:

Three-syllable metric words : (雨伞厂 [yu san chang] (umbrella factory)): (***)

Three-syllable bound phrases: (小雨伞 [xiao yu san] (small umbrella)): (*^)(**)

Three-syllable free phrases: (买雨伞 [mai yu san] (to buy an umbrella)): *(**)

She points out that three-character V-O without parentheses is free syllable, which is suggested by Duanmu (1999). This kind of syllable (e.g. 买[mǎi](to buy)) can not only move towards the two extremes of the foot bound, but also towards the two side-lines of stress bound, which is proper and fit to deal with the free syllables that are out of the deep rhythm.

The assumptions proposed by Wang and Duanmu appropriately explain the S+P+O [1+3] idiom metric structure. Taking 将遇良才[jiāng yú liáng cái](find one's match) as example, the key verb 遇[yù](to meet) as one syllable is out of the whole VP metric structure. According to Wang's (2000) predication, in regard to prosody, this is the free part that can be combined freely with the first syllable and the last syllable. However, in a four-syllable idiom, only one syllable is left to NP due to the fact that VP has taken 3 characters. On the other hand, one-syllable V, which is out of prosody structure, tends to match with the first syllable to form the two-syllable metrics rather than the last syllable, which is called super-prosodic-word. This explains how S+P+O [1+3] idiom metrics structure has been changed to 2+2 structure.

4.2.2 [S[Adverb Predicate] and [S[Auxiliary Predicate] the prosodic analysis of idioms

The structure of the idioms that have been illustrated in (3b) and (3c), as it's been shown in figure 4("I" both stands for adverb and auxiliary verb), is different from the aforementioned structure. The second syllable acts as adverb or auxiliary verb here. Therefore, they are more likely to be used as functional words than vocabulary. It demonstrates the upward movement of characters (e.g. 我往北走[wǒ wǎng běi zǒu](I go towards the north), the pitch model will change from 3-3-3-3 into 2-3-2-3), therefore, the second syllable in these discourse tend to move forward to 2+2 prosodic model.

4.2.3 About 青出于蓝[qīng chū yú lán](green comes from blue but better than blue (surpass one's master or teacher in learning)).

A compound relationship can be found in idioms like [qīng chū yú lán] because of the preposition and the verb (Dong, 1998; Feng, 2005). Therefore, 出于[chū yú](come from) firstly forms a grammatical word, so that this idiom cannot be reanalyzed into 2+2 prosodic structure, and can keep the prosodic 1+3 structure.

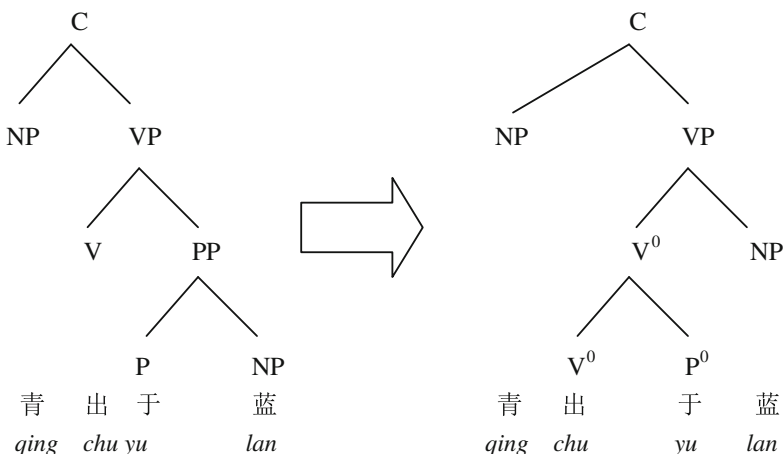


Fig. 4. The reanalysis of the idiom [qīng chū yú lán]

4.3 Re-analyses of Verb-Object Idioms with 1+3 Structure

4.3.1 Light verb theory and verb-object idioms with 1+3 structure.

According to researches on light verbs in verb-object structures made by Larson(1988), Huang el(2009), the above-mentioned (4a), (4c), (4d) and (4e) can also be analyzed in the light verb theory, which can be seen in figure 5 (v refers to light verb, while V notional verb).

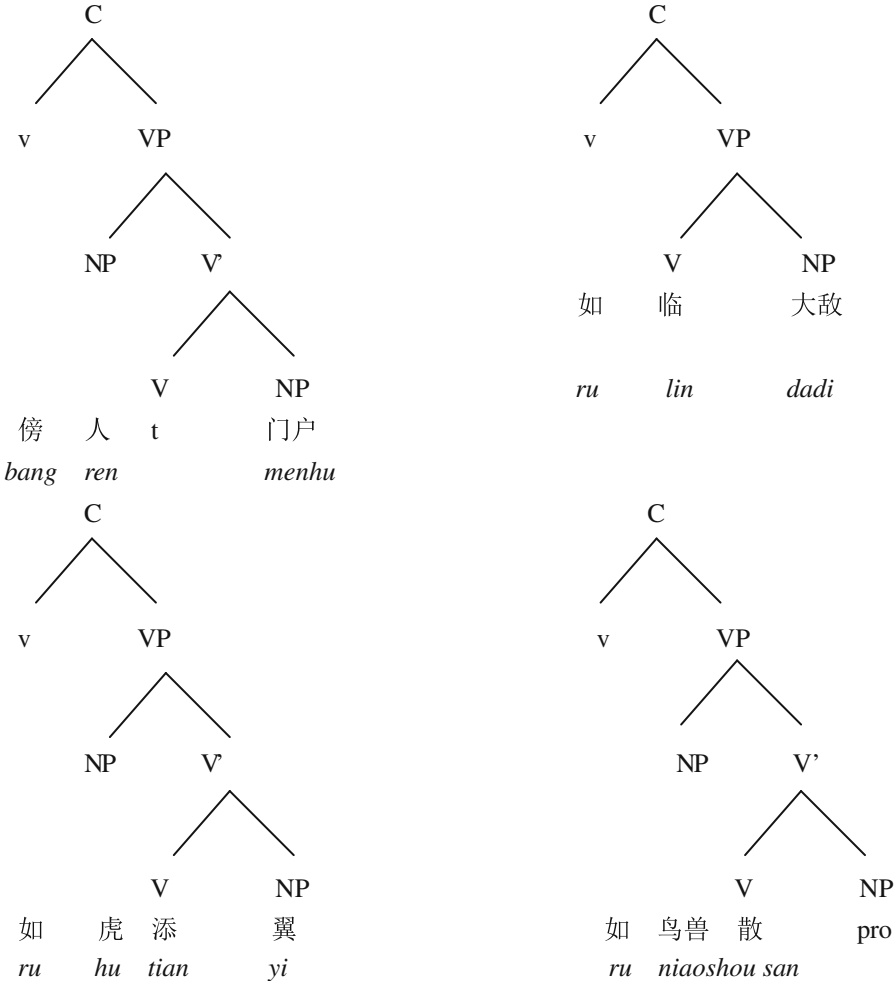


Fig. 5. Re-analyses of verb-object idioms with 1+3 structure

In certain situation, light verbs can rise up the notional part to replace it or form a disyllabic prosodic structure by attracting another word to form a standard prosodic word. In figure 5a, 5b and 5c, all the adjacent parts are monosyllabic in structure, thus, all of them can be risen up or can attract other words to form a standard prosodic

word. Under this restrain, reanalysis can be made to form a 2+2 structure. However, 如鸟兽散[ru niaoshou san](scatter like birds or wild animals) at figure 5d is different, because 鸟兽[niaoshou](birds and wild animals) is disyllabic, and it cannot be embedded into 如[ru](like), which is beyond the restrain to standard prosodic word. Hence, it cannot be reanalyzed into 2+2 structure.

4.3.2 About 乘人之危[cheng ren zhi wei](take advantage of others' difficulties). [V+[X zhi Y]], one type under verb-object idioms, grammatically belongs to 1+3 structure, but its prosody is different from the others because of the [zhi] (Feng(2009) and Luo(2014)) have demonstrated that such kind of classical Chinese functional word will affiliate with the following part Y, after which it will form a word [zhi]-Y and then combine with the previous part to form a 2+2 prosodic structure.

4.4 Verb-Complement and Adjective-Complement Idioms with 1+3 Structure

This kind of idioms can be easily analyzed, because complement embedment exists in theory and has been proven (Feng, 2005). Thus the following does make sense in Figure 6 and 7:

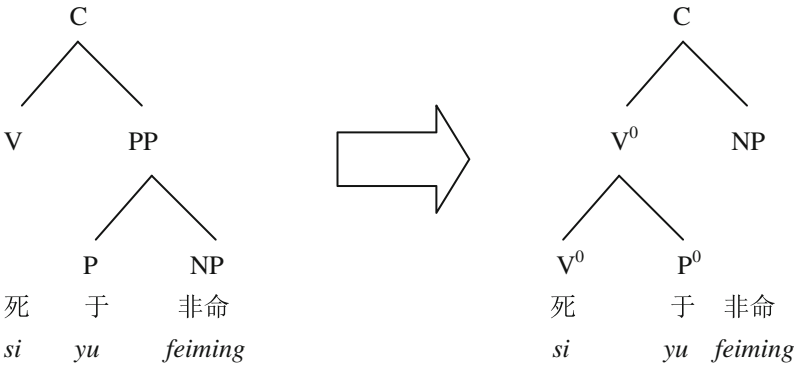


Fig. 6. Verb-complement idioms with 1+3 structure

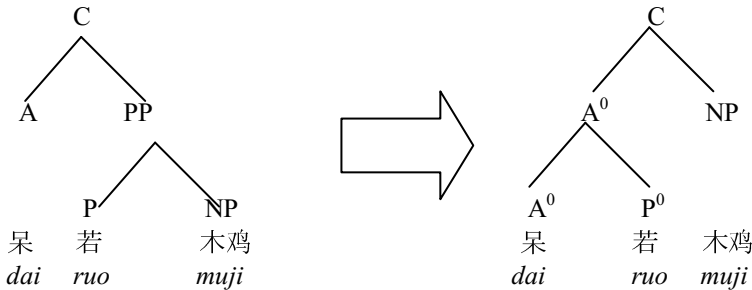


Fig. 7. Adjective-complement idioms with 1+3 structure

5 Conclusion

Taking all above analyses into consideration, re-analyses from 1+3 structure to 2+2 structure must obey these rules:

First of all, adverbs in adverb-verb structure are mostly ECMM. They are firstly combined with a monosyllabic verb to form a disyllabic grammatical word, and are later assigned to other syllables in order to create a 2+2 structure.

Second, in the structures of subject-predicator, the second syllable affiliates with the first one, thus they will be 2+2 prosodic structure.

Besides, light verb attracts other part in verb-object structure, and under the restrain of standard prosodic word, the first two words combine together to form a prosodic 2+2 structure.

In addition, some classic Chinese functional word tends to affiliate with the following part, leading to the inconsistency between its prosodic structure and grammatical structure. Finally the prosody overcomes the grammar and form a 2+2 prosodic structure.

Furthermore, verb-complement and adjective-complement idioms with 1+3 structure should be reanalyzed into 2+2 structure due to the embedment of preposition to verb.

Last, if the length of a word, after the incorporation of one constituent being incorporated into another one, overrides the standard prosodic word, it cannot be reanalyzed into 2+2 structure and they maintain 1+3 prosodic pattern.

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