

# An Attempt at Analysis of Polysyllabic words in Modern Chinese: in perspective of Natural Semantic Metalanguage Approach

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## Abstract

*The Modern linguistic study of internal life of words (morphology) of Modern Chinese only started in 1950s. There have been many arguments about Chinese words. Due to the complicated internal structure of Chinese words people have difficulties in identifying polysyllabic word. As a result, analysis and classification of Chinese words is a complex study. This paper presents different points of view from the previous research to help readers to realize some issues and draw attention to the Chinese language-specific word formation. At the same time the paper uses NSM (Natural Semantic Metalanguage) approach at the attempt to help the readers to understand the significance of the Chinese word formation. The readers, through the NSM analysis, will be given not only a better picture of the Chinese word formation, but also a better semantic and pragmatic understanding of the Chinese morphology.*

## Introduction

Modern Chinese refers to the language used since 1900 (Packard, 1998: 1). The study of word formation in Modern Chinese can be approached in two ways. One is to adopt the traditional Chinese philological method which suggests that a compounding word is made of two characters. The other one is the hypothesis of contemporary linguistics which suggests that a compounding word is a word consisting of two or more morphemes (Stanley Starosta etc 1997: 347). Actually the real discussion of wordhood in Modern Chinese didn't occur until the 1950s, when prompted by the desire to introduce an alphabetic writing system. Because the test criteria often conflicted each other some scholars had a question mark for the attempt to analyse Chinese words. They came to the conclusion that there is no need of the notion "word" in discussion of Chinese grammar. Ordinary Chinese people often say "What do the characters mean" when they do not know the meaning of the word or the words. For example, 语言学 ( *yuyanxue*, linguistics ) Chinese people will say: "这三个字是什么意思?" ( *zhe san ge zi shi shenme yisi*, what do these three characters mean? ) Therefore, it is not easy to use the Western concept of word formation or word building to analyse Modern Chinese word formation.

David Singleton (2000: 10) states that words in one language may have some characteristics which have little or nothing in common with the characteristics of words in another language. Chinese word formation is a case in point. For instance, Chinese word 提高 ( *tigao*, improve ) has a word formation which is very different from English. *Tigao* is a verb+complement subcategory under the Compound category. However all words coined in whatever way have certain structures or follow certain rules. More and more Chinese linguists are trying to analyse Chinese word based on contemporary linguistic approach. Jerry Norman (1988: 112) states that disyllabic words in Modern Chinese are basically formed in two ways: by compounding and by affixation. According to him Chinese simple words are made up of one morpheme (one character), for instance 花 ( *hua*, flower ) is a simple word. According to him a free morpheme with a word-formative affix such as -儿 ( *er* ) is still a simple word although it has two characters because *er* is a bound morpheme, for example, 花儿 ( *huaer*, flower ) is still a simple word. According to him Chinese compound words are composed of two or more free morphemes,

such as 火车 (*huoche*, train). *Huo* and *che* are all free morphemes that can be used as words. In talking about Chinese word formation, Liu Xun, the composer of *Chinese Practical reader* 3 states that in Chinese a suffix-like character is attached to a simple or compound word to form a new word and he lists the word 医生 (*yisheng*, doctor) under affixation which is called attachment in his book (2005: 154). But in the same book the composer states that there is another way of forming the word which is called Modifier+modified compound word. He says that in such a structure the first word modifies the latter word and gives *yisheng* as one of the examples (2005: 35). According to him *yisheng* belongs to simple word and compound word as well. Paul Kratochvil (1970: 69), when discussing simple polysyllabic words, states that a great number of word-formative suffixes constitute small sets of Modern Standard Chinese (MSC) words. These suffixes usually have a more specific meaning and they stand closer to the borderline between affix and root morphemes. The word 护士 (*hushi*, nurse) is used as an example. Jerry Norman (1988: 156), when talking about compounds, states that some of the elements in Modern Chinese compounds recur so frequently that they have virtually attained the status of affix. 学 (*Xue*) in *yuyanxue* is used as an example. Mobo Gao (2000: 106) lists *yisheng* as compound word that is formed by free morphemes of different meaning. But when discussing affixations (2000: 116), he includes 学 *xue* in 人类学 (*renleixu*, anthropology) and 家 *jia* in 科学家 (*kexuejia*, scientists) as word-formative suffixes. From these four recourses it seems that none of them give the readers a clear answer to the question how to identify polysyllabic words in Modern Chinese. *Yisheng* is simple word or a Modifier+head compound word? Through this paper we try to use Natural Semantic Metalanguage (NSM) approach to work on the inner life of words in Modern Chinese. Jerry Norman (1988: 156) states that the analysis and classification in compounds in Chinese is a very complex study which is also a one of the urgent tasks because of the practical implications in language reform, the teaching of Chinese and lexicography. The discussion here tries to throw some light on the argument about the borderline between affix and root morphemes in Modern Chinese.

## Discussion

Wierzbicka (2003: 10) states every language is a self-contained system and in a sense, no word or constructions of one language can have absolute equivalents in another. The inner life of the word formation in Modern Chinese is more related to syntactical level and semantic level rather than morphological level. A given word is not necessary just a sequence of sounds or characters with an overall, indivisible meaning, it is made of a whole of meaningful components, which will have their own syntactical and semantic functions. Paul Kratochvil (1970: 57-58) states that the classification of morphemes according to their relation with the units they construct is of greater importance for MSC morphology, since it provides greater insight into the way morphemes function in the grammatical system of MSC. It is also more difficult to classify MSC morphemes in this way because the status and borderlines of the units they construct are not always clear. The following analysis from NSM tries to describe the mutual relation between or among components truthfully and gain a better understanding the "self-contained system" of Modern Chinese.

## Natural Semantic Metalanguage (NSM) approach

The basic idea of Natural Semantic Metalanguage (NSM) approach is that we try to describe complex ideas in terms of simpler words to see the main components. For example, to state the meaning of a semantically complex word we should try to give a paraphrase composed of words which are simpler and easier to understand. This is called reductive paraphrase. It prevents us from getting tangled up by circular and obscure explanations. Only plain words from ordinary natural language, which is called "semantic primes" are used in the paraphrase. The semantic primes and their principles of syntactical combination constitute a kind of "mini-language" with the same expressive power as a full natural language.

The NSM model has changed a lot since it was first advanced in the early 1970s by Anna Wierzbicka. The number of proposed primes was expanded greatly, reaching a current total of 60 or so. The current proposed primes can be presented, using their English exponents, in the table in Appendix A.

In this paper we try to see the real nature of the word formation in Chinese by analyzing some examples from each word formation method of 学 ( *xue*, study, learn )

The number of compound words a character can form or build is called the 'word formation capability'. For example, 学 ( *xue*, study) can have 学生 ( *xuesheng*, student), 大学( *daxue*, university), 学院 ( *xueyuan*, institute), 学习 ( *xuexi*, learn), 中学 ( *zhongxue*, high school), 小学 ( *xiaoxue*, primary school), 语言学 ( *yuyanxue*, linguistics), 学学 ( *xuexue*, learn), 学好 ( *xuehao*, finish learning), 学者 ( *xuezhe*, scholar), 办学 ( *banxue*, run a school), 博学 ( *boxue*, erudite) 才学 ( *caixue*, talent) 初学 ( *chuxue*, begin to learn) 辍学 ( *chuoxue*, discontinue one's study) 冬学 ( *dongxue*, study groups organise for peasants to learn to read and write in winter slack season) 好学 ( *haoxue*, fond of learning, easy to learn) 教学 ( *jiaoxue*, teach) 同学 ( *tongxue*, classmate) 学费 ( *xuefei*, tuition fee). It is estimated that *xue* has the capability of 121 word forms. Some NSM analysis will in some way help us to see the key point or the feature of the components of the combined words formed by *xue*. Before we go further we will have the explication of *xue* so we have a better idea of the compound words of *xue* in later discussion

学Xue:

The Pinyin Chinese-English Dictionary (1979: 784) defines this as:

1. study, learn
2. imitate, mimic
3. learning, knowledge
4. subject of study, branch of learning
5. school, college

We can see that *xue* has several meanings from the dictionary. But it doesn't tell the method of forming a word with *xue*. In other words it doesn't provide any morphological information. For example, why the *xue* in 语言学 from the above means subject of study and *xue* in 大学 means school? To determine the meaning of *xue* in the compound word is depending on the relationship between *xue* and other character in the word. The following NSM analysis of some of the words formed with *xue* will just do the job.

## Analysis

1. 我学习语言学 ( *Wo xuexi yuyanxue*, I study linguistics )

学习 *Xuexi*:

When people say things like this they think like this:

I know I will do something like "*xue*".

The words "*xue*" "*xi*" are the same.

I can do "*xue*" with "*xi*".

I also can do "*xi*" with "*xue*".

The two things are parts of one thing.

*Xuexi* is formed by two morphemes which have the similar meanings. This is the coordinate category of Chinese compound words. The two morphemes can be in similar meaning or opposite meaning. By looking at the components of *xuexi* "the word *xue* and *xi* are the same" we know that the two similar-meaning words are put together, they mean one thing. The characteristic of the coordinate compound words is that word class of each morpheme should be the same. *Xue* is a verb and *xi* is a verb too. *Xuexi* in this sentence is a verb.

### 语言学 *Yuyanxue*:

When people say this word they think like this:

I know this is something we do because the word “*xue*” is after something.

This thing has something to do with “*yuyan*”.

I will have other thing if I say something else, not the word “*yuyan*”

When people say this they know this is something big.

*Xue* here is the main component of the word. “I will have different thing if I say something else, not the word “*yuyan*” this explication shows that the relation between *yuyan* and *xue* is modifier +head. If *Yuyan* is replaced by other nouns like *renlei* in *renleixue* it will mean anthropology.

### 2. 我是汉语学生 ( *wo shi hanyu xuesheng* , I am a Chinese student )

#### 学生 *xuesheng*:

When people say something like this he or she thinks like this.

I know this is a person because of the word “*sheng*”.

I know this person does something like “*xue*”, not other things.

When people have other words like “*xue*” towards the word “*sheng*”, something will happen to the word “*xuesheng*”.

*Xuesheng* is formed by two morphemes which have modifier+head relationship. *Xue* modifies *sheng*. If *xue* is changed into other words like 医 (*yi*, medical), then the word will mean “doctor” instead of “student”. Jerry Norman (1988: 154-156) argues that morphemes can also be characterised by the degree of versatility with which they occur with other morphemes. They are considered versatile if they enter into combination with relative ease and they are considered restricted if they occur only in a very small number of contexts. Some of the morphemes in Modern Chinese compound words recur so frequently that they have virtually attained the status of affixes. That is why some other scholars classify *sheng* as suffix. According to the component in the explication of the word “*xuesheng*” “I know this is a person because of *sheng*” tells us that *sheng* actually plays the key function in the formation, at least it tells the part of speech of the word and meaning. The component of “I know this person does something like “*xue*”, not other things” indicates that *sheng* is modified by *xue*. Their relation is subordinate.

### 3. 欢迎海外学子归来 ( *huanying haiwai xuezi guilai* , welcome overseas scholars back. )

#### 学子 *xuezi*

When people say this word they think like this:

I know this is a kind of people because of “*zi*”.

I know that this kind of people do something like “*ue*”

Something happens to “*zi*” if we have other words like “*xue*”.

This word is formed by two characters which also have relation as modifier+head as above. Here *zi* is in third tone which means a person. In classical Chinese *zi* is used after a surname of a scholar such as 孔子 ( *kongzi*, Confucius ). But if *zi* is atonic, that will be a different story. *Zi* in neutral tone doesn't have any meaning. It is only a bound versatile morpheme functioning as nominal suffix. Examples are 本子 ( *Benzi*, notebook ). So the tone of the tonal language like Modern Chinese is another aspect to pay attention when studying word formation.

### 4. 汉语好学 ( *Hanyu haoxue* , Chinese is easy to learn )

#### 好学 *haoxue*

When people say this word they think like this:

I know this is something I feel.

I feel I can do something because of “hao”.

If I want to do “xue” I feel I can do it.

I can do it well.

When people say this they feel good.

*Hao* here has changed its original meaning “good”. It goes with a verb to form an adjective and the meaning of *hao* depends on the verb it goes with. For example, 好吃 ( *haochi* ) means delicious. Actually “hao” is showing the way or manner to do the action of *xue*. The tone of *hao* plays important role here. If *hao* is in a different tone, saying 4<sup>th</sup> tone, it will be *haoxue* (eager to learn or spend a lot of time in reading), *haochi* ( spend a lot of money on food).

他很好学 ( *Ta henhaoxue* , He is always thirsty for knowledge )

好学 *haoxue*

When people say somebody like this they think of this person like this:

I know this is some thing I feel.

I feel this person wants to do something a lot.

I know this because of the word “hao”.

This person feels good when something like “xue” happens.

When people say this about other people, they feel good toward these people.

Compare the components of *hao(3)xue* and *hao(4)xue* we can see that tone really make different in Chinese language. “I feel I can do something” in *hao(3)xue* and “ I feel this person wants to do something a lot” in *hao(4)xue*, these two components indicate the different meaning due to the different tones. Not only the tone, but also the word order of *hao* demonstrate different word formation. Look at the explication of “*xuehao*” in the following sentence.

5. 我们学好了汉语 ( *women xuehaole hanyu*. We have done Chinese)

学好 *xuehao*

When people say this they think like this:

I know I have done something.

I know I can do this thing now because I have done it for a while.

I know there is no “*xue*” any longer because I have done “*xue*” for some time. When people say this to other people they feel good.

*Xuehao* is a subordinate compound verb with *hao* as complement of result. This word formation is totally related to Chinese syntactic structure: head+modifier. Scholars found that all the syntactic relationship found in the phrases and sentences are all found in Chinese compounds. This makes it hard to draw a boundary between morphology and syntax in Modern Chinese. *Xuehao* is not only telling us the action of *xue*, but also indicates the meaning of the result of the action which is represented in the component of “ I know there is no “*xue*” any longer because I have done “*xue*” for some time”. But look at the sentence “他不学好” ( *tabuxuehao*, he is not following good examples ) . Here *xuehao* is verb+noun subordinate compound word, having NSM components of “*xue* has the meaning of doing things after other people, *hao* has the meaning of good people or things”. So the classification of compound words depends a lot on their syntactical function in a sentence.

6. 我自学汉语 ( *Wo zixue hanyu*, I taught myself Chinese)

自学 *Zixue*

When people say this they think like this:

I do something like “*xue*”.

I am the person who does the “*xue*”, not with other people.

If we think more carefully about the meaning of this compound word we can recognise the semantic contributions of each individual word. “I do something like *xue*” indicate this is a verb. “I am the person who does *xue*, not with other people” shows the manner which modifies the action of *xue*. So it is a modifier+head compound word.

From the examples we have discussed so far we noticed that no matter in what way the compound word is formed, there is a centre character in the word, which is also called headedness. NSM is able to pick up the headedness, such as *xue* in *xuexi*, *sheng* in *xuesheng*, *hao* in *haoxue* and *xue* in *xuehao* and *xue* in *zixue*.

But not every compound word has syntactical significance, reduplicated compound words in Modern Chinese have more pragmatic implication. Look at the NSM analysis of the word *xuexue*

7. 明天我没事儿，可能学学汉语 ( *mingtian wo meishir, keneng xuexue hanyu*, I don't have anything to do. Maybe I will have a look at Chinese )

学学 *xuexue*:

When people say this they think like this:

I know I will do something like “*xue*”.

I will not do the thing “*xue*” for long time.

At the same time I feel “*xue*” is good to me.

People want to have this kind of thing for some time when they feel that they don't have other things to do.

Reduplication has a number of pragmatic functions. “Tentative” aspect of verb reduplication has several different nuances depending on the particular verbs (Jerry Norman 1988:156). *Xuexue* has the tentative touch of the meaning of “study for a while or have a go in reading a book” which is implicated by the component “I will not do the thing *xue* for long”. At the same time it indicates the speaker's attitude to the things he or she is doing. The component “People want to have this kind of thing for some time when they feel that they don't have other things to do” really shows the pragmatic indication that the speaker may give a hint that he would be happier if he could do something else or give the hearer the hint that they should do something together.

## Conclusion

Modern Chinese language is similar to English in lexical categories. Its major word formation includes simple word and compound word.

As was noted in the NSM analysis, Chinese words not only contain information about the meaning, but also about different association with other grammatical environment or pragmatic significance. The analysis also shows the impact of particular morpheme on other morpheme with which they combine in a word. That means among the morphemes in a word there is a centre morpheme or meaning. In word formations in Modern Chinese, some affixes are not really affixes. For example, *xuesheng*, *sheng* is regarded both as affix and a free morpheme among the Chinese morphology. It functions as affix-like in the word formation because of its versatility. At the same time, the analysis by NSM shows that the syntactical relation between *xue* and *sheng* is modifier+head. So *sheng* is a free morpheme. The real affixes in Chinese are those which do not contain any lexical meaning. Without these affixes, all root words mean the same thing. Examples are *zi* in neutral tone as nominal suffix in *benzi*.

Chinese compounds are easy to understand if we look at them from the perspective of syntactic significance. There is always a centre character which has a modifier around. The relationship between the characters in the word indicates the kind of syntactical patterning or grammatical rules. The analysis of *Hao(3)xue*, *hao(4)xue*, *xuehao*, *xuehao* and *zixue* fully indicates the syntactic feature of Chinese compound word. In the light of the discussion by NSM the deeper we go for the components of the word the better idea we will have about the inner life of the words. The explications of the word formation in this article are only suggestions. More discussion can be done in later research.

Reduplication in Modern Chinese occurs in relation to the pragmatic phenomenon rather than morphological issue. As noted in the analysis by NSM, the speakers use the duplicated words to convey a sense of affection, their attitude and the implied meaning. For example *xuexue* not only shows the action but also implies the meaning of tentativeness and the speaker's attitude to the action as analysed in NSM.

For analysing the general behaviour of morphemes in words of Modern Chinese, much more evidences than the examples in this paper would be required. However these analyses in the paper can be used as small sample of the overall features of Modern Chinese morphology.

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**Appendix A: The current proposed primes in NSM**

Substantives:	I, YOU, SOMEONE, PEOPLE, SOMETHING/THING, BODY
Determiners:	THIS, THE SAME, OTHER
Quantifiers:	ONE, TWO, SOME, ALL, MANY/MUCH
Evaluators:	GOOD, BAD
Descriptors:	BIG, SMALL
Intensifier:	VERY
Mental predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY, WORDS, TRUE
Actions, events, movement, contact:	DO, HAPPEN, MOVE, TOUCH
Existence and possession:	THERE IS / EXIST, HAVE
Life and death:	LIVE, DIE
Time:	WHEN/TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT
Space:	WHERE/PLACE, HERE, ABOVE, BELOW; FAR, NEAR; SIDE, INSIDE; TOUCHING
"Logical" concepts:	NOT, MAYBE, CAN, BECAUSE, IF
Augmentor:	VERY, MORE
Taxonomy, partonomy:	KIND OF, PART OF
Similarity:	LIKE