



# A Study of the Neutral Tone in Standard Mandarin

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**How to cite this paper:** Shen, J.H. (2022) A Study of the Neutral Tone in Standard Mandarin. *Open Access Library Journal*, 9: e9104.

<https://doi.org/10.4236/oalib.1109104>

**Received:** July 15, 2022

**Accepted:** August 20, 2022

**Published:** August 23, 2022

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## Abstract

Chinese is a tone language. Since the concept of neutral tone was put forward, it has received much attention from many linguists. This thesis first briefly reviews the studies of the neutral tone in Standard Mandarin. Meanwhile, the definition and the acoustic features of the neutral tone are introduced. Then, the distribution and functions of the neutral tone in Mandarin are further discussed. It is found that the neutral tone plays a significant role in Standard Mandarin. This research will help language learners and researchers better understand the neutral tone in Standard Mandarin.

## Subject Areas

Linguistics

## Keywords

Neutral Tone, Standard Mandarin, Distribution, Function

## 1. Introduction

It is well-known that there are four kinds of tones in Chinese, namely, *Yinping* (the level tone), *Yangping* (the rising tone), *Shangsheng* (the falling-rising tone), and *Qusheng* (the falling tone). Different types of tones are represented as different tone marks in Chinese Pinyin system. The tone mark of *Yinping* is “ā”. The tone mark of *Yangping* is “á”. The tone mark of *Shangsheng* is “ǎ”. The tone mark of *Qusheng* is “à”. The expression of the neutral tone is “a”. The same syllable with different tones usually expresses different meanings. For example, the characters “mā (妈)”, “má (麻)”, “mǎ (马)” and “mà (骂)” have the same syllable “mā”, but they are read with different tones. The first character “mā (妈)” is read with the level tone, which means “mom” in English. The second character “má

(麻)” is read with the rising tone, which can be used as a general term for hemp, flax, jute, et cetera. The third character “*mǎ* (马)” is read with the falling-rising tone, which can be translated as “horse” in English, while the last character “*mǎ* (骂)” is read with the falling tone, which means “curse” in English. The neutral tone is one of the most important phenomena in Standard Mandarin. The research on the neutral tone can be traced to the beginning of the twentieth century, when Zhao Yuanren first put forward the concept of “neutral tone” in his work *Guo Yu Luo Ma Zi De Yan Jiu* (《国语罗马字的研究》) (1922) [1]. Since then, the research of the neutral tone has become one of the hot issues in the field of linguistic study.

The previous studies on the neutral tone in Standard Mandarin are mainly focused on the description of its acoustic features, which have achieved significant outcomes. For example, by employing the method of experimental phonetics, Lin Maocan and Yan Jingzhu (1990) [2] systematically explored the acoustic features of the neutral tone in Standard Mandarin. They found that the neutral tone belongs to a kind of weak stress. Cao Jianfen (1995) [3] further analyzed the features of the neutral tone and put forward the tone sandhi rules related to the neutral tone.

Besides, the researchers have conducted a hot discussion on the nature of the neutral tone and the distinction between the “neutral tone” and “weak stress” in Standard Mandarin. Wei Gangqiang (2005) [4] held that the neutral tone is a kind of tone category, but it cannot be seen as the fifth kind of tone in Mandarin. According to him, the neutral tone cannot be seen as a kind of tone sandhi. The neutral tone and the weak stress are two different kinds of phonetic phenomena of Standard Mandarin. Different from Wei, Feng Shengli (2012) [5] believed that the neutral tone could be viewed as the fifth kind of tone in Mandarin. However, many scholars (Li Shuyan, 2005 [6]; Zhu Hongyi, 2009 [7]; Chen Dan, 2012 [8]; Ren Dongmei, 2018 [9]) considered that the neutral tone in Mandarin could be seen as a kind of tone sandhi but it cannot be seen as the fifth kind of tone. In summary, people’s opinions on the nature of the neutral tone vary.

What is more, there are a few studies concerning the distribution of the neutral tone in Mandarin. Sun Heping (2001) [10] discusses the causes of the neutral tone and generalizes the regulations of its appearance. Wang Min (2010) [11] systematically compares the words pronounced with the neutral tone in the fifth edition of the Contemporary Chinese Dictionary with those in the third edition and analyzes the differences between these two editions. Wang Ying (2017) [12] explores the neutral tone existing in the pronunciations of disyllabic Chinese word groups. However, these studies on its distribution in Mandarin are not sufficient, and the functions of the neutral tone are not systematically explored.

Therefore, based on the previous studies, this thesis first reviews the definition and acoustic features of neutral tone in Standard Mandarin. Then, the distribution and functions of the neutral tone are systematically analyzed. This thesis aims at helping language learners and researchers have a clear understanding of the neutral tone in Standard Mandarin.

## 2. The Definition and Acoustic Features of the Neutral Tone

### 2.1. The Definition of the Neutral Tone

According to Feng Chuntian *et al.* (1995: 455) [13], the neutral tone is also known as “weak stress”. It refers to a tone in which the syllables in some Chinese word groups or some characters in sentences are lightly pronounced and the pitch is rather vague. Xing Fuyi (2011: 91) [14] provides a more detailed definition of the neutral tone: “Many syllables in the speech stream lose their original tones and are pronounced in a short and light tone, which is called a neutral tone. Whether the sound is light or not is largely determined by the length of the sound.” To conclude, the concept refers to a tone of a syllable that has its original tone, but in some word groups and sentences, the original tone changes into a light and short tone, namely, a tone with a relatively weaker intensity and a relatively shorter duration, which is called the neutral tone. In Standard Mandarin, many characters are read with the neutral tone in word groups or sentences. For example, the Chinese character “*men* (们)” is originally read with *Yangping* (the rising tone), but it is usually pronounced with the neutral tone in disyllabic word groups, such as “*wǒ-men* (我们)”, “*tā-men* (他们)”, “*zán-men* (咱们)”, et cetera. “*jiu* (就)” is another Chinese character whose original tone is *Qusheng* (the falling tone), but it is commonly pronounced with the neutral tone in the sentence “*wǒ bù xiǎng jiāng-jiu* (我不想将就)”.

### 2.2. The Acoustic Features of the Neutral Tone

It is well-known that the acoustic features of the neutral tone are very different from those of four kinds of tones in Mandarin. First of all, its intensity is generally weaker, but it is said that the intensity is not the main reason which causes the tone of a syllable to become a neutral tone. The intensity of unstressed syllables is not necessarily lower than that of other kinds of syllables. The intensity of an unstressed syllable is related to the tone type of the syllable in front of it (Cao Jianfen, 1995: 316) [3]. Secondly, the duration of a syllable plays a great role in identifying whether it is stressed or not. Generally speaking, the duration of unstressed syllables is about half of that of normally stressed syllables (Cao Jianfen, 1995: 315) [3]. Thirdly, according to the investigation, those unstressed syllables have tone contours, and their pitch and shapes of contours are determined by those of syllables in front of them (Lin Maocan & Yan Jingzhu, 1980 [2]; Cao Jianfen, 1995 [3]). Last but not least, the timbre of the neutral tone is different from those of ordinary tones, which sounds a little vague.

To conclude, the acoustic features of the neutral tone are different from those of other kinds of tones in Standard Mandarin, and the pitch and duration of a syllable are two major factors that differentiate unstressed syllables from stressed syllables.

## 3. The Distribution of the Neutral Tone in Standard Mandarin

It is believed that the neutral tone existed predominantly in the Chinese disyl-

labic word groups and two categories. Hence, this part mainly discusses the neutral tone in disyllabic word groups and particles.

### 3.1. The Neutral Tone in Disyllabic Word Groups

In Standard Mandarin, there are many disyllabic word groups, and the second syllable of many of these word groups is always pronounced with the neutral tone. The following tables provide some examples. It is noticed that the bold Pinyin represents the sounds pronounced with the neutral tone.

From **Table 1**, it can be seen that the neutral tone mainly exists in verbal phrases which have two same syllables, and the second syllable of these expressions is always pronounced with the neutral tone.

**Table 2** provides four word groups that express directions. It is noted that the syllables in each of these expressions are different from each other. In Standard Mandarin, the second syllable of these expressions is pronounced with the neutral tone.

**Table 3** presents some kinship addressing terms in Standard Mandarin. It also can be seen that each term in **Table 3** is made up of two same syllables and the second syllable of these expressions is articulated with the neutral tone.

**Table 4** shows that the second syllable of many disyllabic nominal groups can be pronounced with the neutral tone and it does not require the two syllables to

**Table 1.** The neutral tone in verb phrases.

Pinyin	<i>qiáo-qiao</i>	<i>zuò-zuo</i>	<i>liáo-liao</i>	<i>chǒu-chou</i>
IPA	/t <sup>h</sup> iau-t <sup>h</sup> iau/	/tsuo-tso/	/liou-liou/	/tʂ <sup>h</sup> ou-tʂ <sup>h</sup> ou/
Chinese characters	瞧瞧	坐坐	聊聊	瞅瞅
Pinyin	<i>wén-wen</i>	<i>tīng-tīng</i>	<i>zǒu-zou</i>	<i>sǎo-sao</i>
IPA	/un-un/	/t <sup>h</sup> in-t <sup>h</sup> in/	/tsou-tso/	/sau-sau/
Chinese characters	闻闻	听听	走走	扫扫

**Table 2.** The neutral tone in locative expressions.

Pinyin	<i>shàng-mian</i>	<i>lǐ-tou</i>	<i>zuǒ-bian</i>	<i>zhè-lǐ</i>
IPA	/ʃaŋ-mien/	/li-t <sup>h</sup> ou/	/tsuo-pien/	/tʂɤ-li/
Chinese characters	上面	里头	左边	这里

**Table 3.** The neutral tone in kinship addressing terms.

Pinyin	<i>yé-ye</i>	<i>nǎi-nai</i>	<i>gē-ge</i>	<i>bó-bo</i>
IPA	/ie-ie/	/nai-nai/	/kɛ-kɛ/	/puo-puo/
Chinese characters	爷爷	奶奶	哥哥	伯伯
Pinyin	<i>jiù-jiu</i>	<i>shū-shu</i>	<i>gū-gu</i>	<i>mèi-mei</i>
IPA	/teiou-teiou/	/ʃu-ʃu/	/ku-ku/	/mei-mei/
Chinese characters	舅舅	叔叔	姑姑	妹妹

**Table 4.** The neutral tone in noun phrases.

Pinyin	<i>bāo-fu</i>	<i>huáng-gua</i>	<i>yǐ-zi</i>	<i>jiàn-zi</i>
IPA	/pau-fu/	/xuan-kua/	/i-tʂɿ/	/tɕiɛn-tʂɿ/
Chinese characters	包袱	黄瓜	椅子	毽子
Pinyin	* <i>dì-guā</i>	* <i>hóng-shǔ</i>	* <i>shuǐ-chí</i>	* <i>jiàn-miàn</i>
IPA	/tì-kua/	/xuŋ-ʂu/	/ʂuei-tɕʰɿ/	/tɕiɛn-miɛn/
Chinese characters	*地瓜	*红薯	*水池	*见面

be the same. However, it also can be concluded that not all noun phrases with two syllables can be pronounced with the neutral tone. The second syllable of the expressions marked with an asterisk cannot be pronounced with the neutral tone. For instance, the second character “*guā* (瓜)” in the expression of “*dì-guā* (地瓜)” is read as “*guā*”. That is the level tone.

### 3.2. The Neutral Tone in Particles

Apart from the neutral tone in disyllabic word groups, there is also the neutral tone existing in Chinese particles. Firstly, the modal particles in sentences such as “*ma* (吗)”, “*ba* (吧)”, “*ne* (呢)”, et cetera are always pronounced with the neutral tone. For example, “*zhōng-wǔ chī-fàn le ma?* (中午吃饭了吗?)”, “*zhè-yàng zuò yīng-gāi kě-yǐ ba?* (这样做应该可以吧?)”. Both “*ma*” and “*ba*” in these two sentences are pronounced with the neutral tone. Secondly, the structural particles such as “*de* (的)” and “*de* (地)” should be pronounced with the neutral tone. Taking the expression “*piào-liàng de huā*. (漂亮的花.)” as an example, the syllable “*dé*” in such kinds of expressions is always read with the neutral tone. Apart from the above two types of particles, it should be noted that the tense particles in Chinese sentences are always read with the neutral tone, such as “*zhe* (着)”, “*le* (了)”, and “*guo* (过)”. For example, “*suí-zhe jīng-jì bú-duàn fā-zhǎn, rén-mín shēng-huó shuǐ-píng yǒu le hěn-dà tí-gāo*. (随着经济不断发展, 人民生活水平有了很大提高.)” In this sentence, both the syllables “*zhe*” and “*le*” should be pronounced with the neutral tone. Otherwise, the sentence will sound unnatural.

## 4. The Functions of the Neutral Tone in Standard Mandarin

As an important sound change phenomenon in modern Chinese Mandarin, the functions of the neutral tone in Standard Mandarin cannot be ignored.

First of all, the neutral tone in Chinese bears the function of distinguishing the semantic meaning of words. Many expressions in Mandarin can be pronounced in two ways. One is with its original tone; the other is with its neutral tone. Different pronunciation expresses different meanings, and it will inevitably cause misunderstandings if people do not pay more attention. For example, in Standard Mandarin, the second syllable of the expression “*lǎo-zi* (老子)” can be pronounced in two ways. One is with the falling-rising tone, which refers to the

famous Chinese philosopher named Laozi. Nevertheless, when it is pronounced with the neutral tone, it can be viewed as a rude expression which indicates someone's father.

Besides, the neutral tone plays a role in distinguishing parts of speech. In Chinese, there are a series of expressions that have the same language forms, but they are different in parts of speech. Take the expression “*da-yi* (大意)” as an example. The second syllable “*yi* (意)” is originally pronounced with the falling tone, which is a noun phrase and refers to the main idea of an article, a passage, et cetera. However, when the second syllable is pronounced with the neutral tone, it will become an adjective phrase that refers to carelessness. Another example is “*jing-shen* (精神)”. When the second syllable is read with the rising tone, it is a noun phrase that refers to people's minds, consciousness, and general mental state. When the second syllable is read with the neutral tone, it becomes an adjective phrase which means full of energy, vitality, and enthusiasm. For example, “*xiao-huo-zi kan-qǐ-lái hěn jīng-shen*. (小伙子看起来很精神.)” In this sentence, the word group “*jīng-shen* (精神)” is an adjective phrase which means the young man looks “very energetic”. Therefore, “*shen* (神)” in this sentence should be read with the neutral tone rather than with the rising tone.

Furthermore, in Mandarin, the neutral tone can change the original semantic color of the expressions. Take the expression “*de-xing* (德行)” as an example, the second syllable can be pronounced with two ways. One is with its original tone, namely, the rising tone; the other is with the neutral tone. When it is pronounced with the rising tone, it is a neutral word which means the morality of a person. Nonetheless, when it is pronounced with the neutral tone, it becomes a derogatory and offensive remark about one's morality. Therefore, during the daily communication, in order to express the meaning accurately and avoid people's misunderstandings, people must pay attention to the tones that they use.

## 5. Conclusion

This thesis has conducted a preliminary study of the neutral tone in Standard Mandarin. In order to have a clear understanding of the neutral tone in Standard Mandarin, this paper first makes a literature review about the studies of the neutral tone in Standard Mandarin. Then, based on the previous studies, the definition and acoustic characteristics of the neutral tone in Standard Mandarin are further explored. Meanwhile, the distribution and the functions of the neutral tone are systematically analyzed. It is found that the neutral tone mainly exists in the disyllabic word groups, and some Chinese particles are always pronounced with the neutral tone. Besides, the neutral tone plays a significant role in language communication. It can be used to distinguish the semantic meanings and the parts of speech. What is more, different tones can be used to express different semantic emotions. This study will be helpful for language learners to have a better understanding of the neutral tone in Standard Mandarin. However, it

must be pointed out that this study has certain limitations. Due to limited time and energy, this study mainly focused on the distribution and functions of the neutral tone in Standard Mandarin. The discussion about its acoustic features is limited. Meanwhile, during the process of the research, it is noticed that the neutral tone in other Chinese dialects also deserves a systematic and deep study. It is believed that through the unremitting efforts of researchers, more progress will be made in the future.

### Conflicts of Interest

The author declares no conflicts of interest.

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