

# On the nature of the separation of Gē (歌) and Gē (戈) rhymes in *Guǎng Yùn* (《广韵》) from the perspective of Cantonese

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**Abstract.** Gē (歌) and Gē (戈) rhymes were not separated in Lu Fayan's (陆法言) *Qiē Yùn* (《切韵》) and Wang Renxu's (王仁昫) *Kān Miù Bǔ Quē Qiē Yùn* (《刊谬补缺切韵》), but were separated in Sun Mian's (孙愐) Tianbao edition of *Táng Yùn* (《唐韵》) in the Tang Dynasty. There is a close correspondence between Cantonese finals and those of Middle Chinese. The pronunciation of Gē (歌) and Gē (戈) rhymes in the Cantonese rhyme book *Fēn Yùn Cuō Yào* (《分韵撮要》), the Cantonese pronunciation recorded by missionaries, and modern Cantonese proves that the separation of Gē (歌) and Gē (戈) rhymes was mainly due to the opposition between open and closed syllables, rather than different main vowels.

**Keywords:** Gē (歌) and Gē (戈) rhymes, Middle Chinese, Cantonese, *Fēn Yùn Cuō Yào*

## 1. Introduction

Gē (歌) and Gē (戈) rhymes were not separated in Lu Fayan's (陆法言) *Qiē Yùn* (《切韵》) and Wang Renxu's (王仁昫) *Kān Miù Bǔ Quē Qiē Yùn* (《刊谬补缺切韵》), but were first separated in Sun Mian's (孙愐) Tianbao edition of *Táng Yùn* (《唐韵》) in the Tang Dynasty. *Guǎng Yùn* (《广韵》) followed the example of *Táng Yùn* (《唐韵》) and also separated them. Other rhyme books and character books from the Tang and Song dynasties, such as Li Zhou's (李舟) *Qiē Yùn* (《切韵》) and Xu Kai's (徐锴) *Shuō Wén Jiě Zì Yùn Pǔ* (《说文解字韵谱》), also followed suit. Regarding the opposition between them different linguists have different opinions. Some linguists believe that the separation of Gē (歌) and Gē (戈) rhymes is the opposition between open and closed syllables, with the same main vowel, such as Bernhard Karlgren, Chao Yuen-ren, Wang Li, Zhou Zum o, Li Rong, etc. Another part of linguists believes that the separation of Gē (歌) and Gē (戈) rhymes is due to different main vowels, such as Li Xinkui, Luo Jiguang, etc. We tend to the former view, that is, Gē (歌) and Gē (戈) rhymes have the same main vowel, and the separation is mainly due to the opposition between open and closed syllables, and Cantonese can provide us with real pronunciation basis.

There is a close corresponding relationship between Cantonese finals and those of Middle Chinese. Li Xinkui (1990) believes that compared with other Chinese dialects, the finals system of Cantonese is closer to the phonological system of Middle Chinese [1]. Qin Yuanxiong (2020) believes that the phonological structure of Southern Guizhou Pinghua and Cantonese is closer to Middle Chinese than any other Chinese dialect, and they originated from the Common Chinese of the Tang and Song dynasties [2]. Cantonese finals can be used as a key to explore the phonological system of Middle Chinese.

## 2. The main vowels of Gē and Gē rhymes characters in Cantonese

According to the Cantonese pronunciation in the Pearl River Delta recorded in Zhan Bohui (1987) [3], the main vowels of the first - class open syllables of the Gǔo-Shè (果摄), such as "多, 拖, 驼, 舵, 挪, 罗, 佐, 搓, 歌, 个, 可, 鹅, 河, 阿", are all [ɔ] in representative dialect points of the Pearl River Delta, such as Guǎngzhōu (urban area) (广州市区), Macau (urban area) (澳门市区), Táishān (Táichéng) (台山台城), Zhōngshān (Shíqí) (中山石岐), Dōngguǎn (Guǎnchéng) (东莞莞城), Nánhǎi (Shātóu) (南海沙头), Zhūhǎi (Qiánshān) (珠海前山), etc. There are only individual exceptions. For example, the Yǐng (影) initial characters of the Gē (歌) rhyme have two pronunciations in the current Pearl River Delta dialects. The literary pronunciation has the main vowel [ɔ], and the colloquial pronunciation has the main vowel [a]. The colloquial pronunciation is an older stratum and a residue of ancient pronunciation. The main vowels of the first-class closed syllables of the Gǔo-Shè (果摄), such as "波, 菠, 簸, 婆, 剌, 妥, 朵, 座, 蓑, 过, 戈, 果, 禾, 倭, 卧", are also [ɔ] in the above-mentioned dialect points. It can be seen that in modern Cantonese, the main vowels of Gē and Gē rhymes are basically the same. So, was it the same in early Cantonese?

The materials recording early Cantonese pronunciation are mainly the Cantonese rhyme book *Fēn Yùn Cuō Yào* (《分韵撮要》) and the phonetic notation materials in Latin documents of Western missionaries. *Fēn Yùn Cuō Yào* is the earliest known Cantonese rhyme book and the most important document for studying the modern Guǎngzhōu and surrounding dialects. From the publication of *Fēn Yùn Cuō Yào* to the early 20th century, dozens of single and combined editions were successively produced. The specific publication time of *Fēn Yùn Cuō Yào* still needs to be verified. The earliest existing combined edition is from the Qiánlóng Rényǐn year (乾隆壬寅年) (1782). *Fēn Yùn Cuō Yào* takes rhyme groups as the main theme and tones as the order, with 33 rhyme systems. Within the rhyme system, they are arranged from flat, rising, and departing (entering) tones, with small rhymes divided by initials, and homophones are assigned to the same small rhyme. In the rhyme system, the small rhymes of the yin tone category are arranged first, and then the small rhymes of the yang tone category. There is no mark between the small rhymes of the yin and yang tones. Eight tones can be summarized, with 7,316 characters. Checking the phonetic notation of the above - mentioned Gǔo-Shè open and closed rhyme characters in *Fēn Yùn Cuō Yào*, it can be found that the Middle Chinese Gǔo-Shè first - class open characters and first - class closed characters belong to the twenty-third "科火货" rhyme. The main vowels in the same rhyme group must be the same, indicating that the main vowels of Gē (歌) and Gē (戈) rhymes were the same in the *Fēn Yùn Cuō Yào* period. The Cantonese pronunciation recorded in the missionary documents of the 19th century also shows that the main vowels of them are the same. In Morrison's Vocabulary of the Canton Dialect (广东省土话字汇) [4] in the early 19th century, the vowel notations for Gē (歌) rhyme characters such as "多,拖,驮,罗,佐,个,歌" and Gē (戈) rhyme characters such as "波,菠,婆,朵,座,过,戈,果,禾,卧" are all "o", such as "个 ko, 波 po". Morrison described the phonetic value of "o" as "o, As in Long", and it can be seen that its actual pronunciation is [ɔ]. In the mid-19th century, in Williams' *A Tonic Dictionary of the Chinese Language in the Canton Dialect* (《英华分韵撮要》) [5], the vowel notation for the above characters is "ó", and its phonetic value is described as "sounding like aw in lord, awful, a in all and tall", such as "歌 kó, 看 hón", indicating that the actual pronunciation is still [ɔ]. It can be seen that in the Cantonese phonetic notation documents of the 19th century, the main vowels of Gē (歌) and Gē (戈) rhymes have always been the same.

From *Fēn Yùn Cuō Yào* to the Latin documents of missionaries in the 19th century to the pronunciation of modern Pearl River Delta Cantonese, the main vowels of Gē (歌) and Gē (戈) rhymes are completely the same. It can be inferred that in the Middle Ages, their main vowels were the same, and the separation may be due to the [u] medial.

### 3. The presence or absence of the [u] medial in Cantonese

Whether Cantonese has a medial has always been the focus of academic discussion. In the above-listed representative dialect points of the Pearl River Delta, the [u] medial has disappeared in most dialect points, but the Gē (戈) rhyme characters after velar initials and zero initials still retain the [u] medial in some dialect points. For example, the Gǔo-Shè first-class closed Jiàn (见) initial "过" still has a [u] medial in the current Guǎngzhōu (urban area), Macau (urban area), Dōngguǎn (Guǎnchéng), Nánhǎi (Shātóu), Zhūhǎi (Qiánshān), forming a distinction from the Gē (歌) rhyme characters with velar Jiàn (见) initial; the first - class closed Jiàn (见) initial "果" still has a [u] medial in Guǎngzhōu (urban area), Macau (urban area), Dōngguǎn (Guǎnchéng), and Nánhǎi (Shātóu) dialects; the Jiàn (见) initial "戈" has a [u] medial in Guǎngzhōu (urban area), Macau (urban area) dialects; the Xiá (匣) initial "禾" and Yǐng (影) initial "倭" still have a [u] medial in Guǎngzhōu (urban area), Macau (urban area) dialects and Zhōngshān (Shíqí) dialects. Most modern scholars believe that the [u] medial remaining after velar initials and zero initials has been integrated with the initials, and they are treated as initial characteristics, setting rounded velar initials kw and kw', believing that there is no [u] medial in modern Cantonese. In fact, early Cantonese once had a [u] medial, which can be proved by modern missionary Latin phonetic notation documents.

In the early 19th century, the Macau Cantonese reflected in Marsman's Cantonese phonetic notation documents had a [u] medial. When summarizing the characteristics of the vowel system, Li proposed that compared with modern Macau dialect, the phonological system recorded in Marsman's *The works of Confucius* containing the original text, with a translation (孔子译著) has a [u] medial [6]; Luo also believes that the phonological system of Marsman's Cantonese phonetic notation documents has a [u] medial [7]. Lv points out that in *The works of Confucius* containing the original text, with a translation (孔子译著) and *Dissertation on the characters and sounds of the Chinese language* (《论中国语言的文字和语音》), the [u] medial can not only be combined with dental initials, but also with dental, lingual, and labial initials [8]. Checking Marsman's Cantonese phonetic notation documents [9, 10], there are 56 cases of closed characters in total. Among them, the [u] medial of Shān-Shè (山摄), Zhēn-Shè (臻摄), Jiǎ-Shè (假摄), and Xiè-Shè (蟹摄) is after various initials. For example, the Shān-Shè (山摄) third - class Chéng initial "传" is as chuen by Marsman; the Shān-Shè (山摄) first-class Duān (端) initial "端" is as tuin; the Shān-Shè (山摄) third-class Qī (溪) initial "劝" is as huen; the Zhēn-Shè (臻摄) first-class Xīn (心) initial "巽" is as suen; the Zhēn-Shè (臻摄) third-class Jiàn (见) initial "君" is as quun; the Jiǎ-Shè (假摄) second-class Jiàn (见) initial "寡" is as qua; the Xiè-Shè (蟹摄) second-class Jiàn (见) initial "怪" is as quay, etc. In Marsman's phonetic notation, there are also some characters being as "w", such as "云 wong, 获 wak". At this time, the characters recorded as "w" initials should be medials in this period. Through the above other examples, it can be seen that in the Macau dialect in the early 19th century, the [u] medial had a wide range of combination with initials. To maintain the unity of the initial-final system, the initial-final structure of characters such as "云

wong, 获 wak" should also be "zero initial + 'uəŋ, uak' ". In Morrison's *A grammar of the Chinese language* (《通用汉言之法》) [11] and *Vocabulary of the Canton Dialect* (《广东省土话字汇》), most of the above - mentioned closed characters have become open vowels, and the vowels with [u] medial are mainly combined with dental and zero initials. The two documents of Morrison record Guǎngzhōu dialect, which is consistent with the fact that the closed medial in today's Guǎngzhōu dialect only appears after dental and zero initials. Chen Weiqiang (2011) proposed that there are two ways for the disappearance of the [u] medial in Cantonese: the first is the loss of the [u] medial, which mainly occurs in Gǔo-Shè (果撮) and Dàng-Shè (宕撮); the second is that the [u] medial drives the high fronting of the lower main vowel, and the main vowel is high fronted to the highest point and combined with the [u] medial, and [u] becomes the main vowel, which mainly occurs in Xiè-Shè (蟹撮) and Shān-Shè (山撮) [12]. Therefore, in the process of pronunciation evolution, the [u] medial of Gǔo-Shè (果撮) in Cantonese was directly lost in most dialect points, and only a few dialect points still retain it, which is a reflection of the different speeds of pronunciation change in each dialect point. From this, we can see that Cantonese once had a [u] medial, and the current situation that most dialect points have no [u] medial in modern Cantonese is the result of evolution.

The pronunciation of the Gǔo-Shè (果撮) first-class closed character "脣" in the modern Nánhǎi (Shātóu) dialect has become [tɕæ<sup>22</sup>], reflecting the change of the main vowel of the Gǔo-Shè (果撮) closed characters from [ua]>[æ]. Li pointed out that in the development of Cantonese, the main vowel will be high fronted under the influence of the medial. For example, the characters such as "遮, 车, 奢" were read as [ia] in ancient times. Later, [a] became [ɛ] under the influence of the [i] medial, and [ia]>[iɛ], and [iɛ] further lost [i] and became [ɛ] [7]. Chen pointed out that the changes of the tongue and tooth characters in the closed rhyme are all caused by the influence of the initials and the closed medial. From the perspective of pronunciation mechanism, the pronunciation position of the tongue and tooth initials is relatively forward, and the position of the Cantonese closed [u] medial is relatively forward, and the lip shape is relatively open. Under their joint action, the original main vowel with a relatively backward and lower position is easy to develop forward and upward [12]. The tongue and tooth sounds of the Gǔo-Shè (果撮) closed rhyme were read as [ua] in the Middle Ages. Under the influence of the [u] medial, the main vowel changed from [ɑ]>[ɔ], and then the main vowel and the medial interacted with each other and further evolved into [œ]. Only the presence of a medial can cause the change of the main vowel, which also proves the existence of the u medial. It's just that this case is special. In the process of disappearance, instead of directly falling off like the [u] medial of other characters, it interacted with the main vowel to form a new main vowel [œ].

#### 4. Conclusion

To sum up, we can infer that the main vowels of Gē (歌) and Gē (戈) rhymes in Cantonese have always been the same. The Gē (戈) rhyme in Cantonese once had a [u] medial, which was different from the Gē (歌) rhyme in terms of the medial. Later, the [u] medial fell off, and the pronunciation was consistent with that of the Gē (歌) rhyme. Therefore, from the perspective of Cantonese, the reason for the separation of Gē (歌) and Gē (戈) rhymes in the Middle Ages was the difference in medials.

Both Middle Chinese Gē (歌) and Gē (戈) rhymes originated from the ancient Gē-Group (歌部). In Duan Yucui's *Ancient Seventeen Rhymes Harmony Table* (《古十七部谐声表》), they are mainly in the seventeenth part. The harmony characters by this part come from Middle Chinese Gē (歌) and Gē (戈) rhymes, Má (麻) rhyme, and Zhī (支) and Qí (齐) rhymes. In Duan Yucui's harmony system of "same harmony must be in the same part", Gē (歌) and Gē (戈) rhymes also have obvious oppositions, which are reflected in that open harmonizes with open and closed harmonizes with closed. For example, Gē (歌) rhyme: 它-沓-佗, 可-何, 哥-歌; Gē (戈) rhyme: 丹-冈-过, 禾-和-龢, 果-裸. Perhaps the medials of Gē (歌) and Gē (戈) rhymes have been different since ancient times, and they were separated in the Middle Ages due to the difference in medials.

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