



Undergraduate assignment feedback form

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Bernhard Karlgren's study of Chinese phonology

1. Introduction

Phonology, a fundamental area of study of linguistics, is concerned with the way sounds are organized in languages and explains the variations that occur. Chinese is a special language because it differs from other phonetic languages in that it uses characters to determine its pronunciation. Therefore, words in a non-phonetic language can vary through time, which means that a Chinese character will not necessarily change through History or its function in a sentence. The purpose of the study of Chinese phonology by Bernhard Karlgren was to through Chinese modern dialects establish kinship and origins of the Chinese language¹. He wants to explain how modern dialects are developed from ancient Chinese. Karlgren says in his research that none of the modern dialects can serve as a starting point for the study of the others; there is only one effective starting point: the old language². To make sure that his research is accurate, he used approximately 3100 ordinary characters to ensure definitive conclusions.

My analysis of Karlgren's study of Chinese phonology is to understand his research methods and achievement more shortly and quickly. This analysis will first follow the outline of Karlgren's research method by explaining the efficient source of the fanqie method and describing his examination of the reconstruction of ancient Chinese through modern dialects. And finally linked to a short introduction of his achievement of the dictionary *Grammata Serica Recensa*.

2. Using the fanqie method during the Middle Chinese

There is a wide variety of sources for studying the ancient Chinese language. Karlgren admitted that the method of fanqie and rhyme tables are the most reliable sources for his study, but we should distinguish the difference between them. The fanqie method is a morphological method that deals with single characters and presents all their phonetic elements. Otherwise, the system of rhyme tables is a generalizing, practical, and classifying system, in which we should identify

¹ Bernhard Karlgren, *Études sur la Phonologie Chinoise* (London: Forgotten Books, 2018), p.5.

² Bernhard Karlgren, *Études sur la Phonologie Chinoise*, p.11.

the difference between *mu* 母 and *yun* 韻. *Mu* refers to the 36 or 30 initial consonants of Song phonetic theory, and *yun* indicates the end of the character from the main vowel. In the study of phonology, the use of fanqie has been neglected compared with rhyme tables, but in fact, it possesses an equal philological value. Karlgren presented new results which were based in most cases on fanqie, he called it a “non-methodical method”³. Over time, many ancient rhyme dictionaries are no longer reliable, due to reshuffles, losses of documents, etc., however, the reissue of 1007 has survived in its entire form: the *Guangyun* 廣韻.

To make a study with the least possible error, Karlgren made very thorough research. He noticed that the *Qieyun* 切韻, the first Chinese rhyme dictionary published in 601 during the Sui dynasty, had an effective rhyme system comprising 206 rhymes, which is nearly similar to the *Guangyun*. Consequently, to confirm the similarity he scrupulously examined the whole *Guangyun* to discover whether its 206 rhymes are real and apparent rhymes, and he proved it⁴. In other words, both dictionaries have an identifiable finals system, which means that Karlgren’s uses of the fanqie method come from the real fanqie of the *Qieyun*, especially for the few thousand of the most ordinary characters of the language he chose.

Returning to the analysis of rhyme tables, it appears some issue in which Karlgren think that the difficulty is deciding whether they represent the idiom spoken at the time of their establishment or whether they are reconstructions of the language of an earlier time by using fanqie⁵. For example, the *qieyun zhizhang tu* 切韻指掌圖 or the *wuyin jiyun* 五音集韻 and so on, have been reorganized to be simplified in comparison to the *Guangyun*, but unfortunately, these tables do not let us reconstruct the ancient Chinese easily through their methodical manner and easiest form to consult. That is why Karlgren mainly based his studies on the fanqie, even though it is a source of information too neglected so far. However, he realizes that the analysis of ancient sources, and the study of the phonetics of ancient Chinese, is not enough to understand properly ancient Chinese. So, he found that the study of modern Chinese dialects is another adequate source, it will provide the solution to many other problems concerning Archaic Chinese and Middle Chinese.

Alternatively, fanqie, as the most ancient source from approximately 500-600 AD, can be expected to find a satisfactory basis for studying a large number of modern dialects. Thus, Karlgren found his proper method of research: starting from finding a reciprocal connection

³ Bernhard Karlgren, ‘Études sur la Phonologie Chinoise’, doctoral thesis (Leyde and Stockholm, 1915), p.27.

⁴ 趙元任 [Zhao Yuanren], 羅常培 [Luo Changpei], 李方圭 [Li Fanggui] trans., 中國音韻學研究 [Zhongguo yinyunxue yanjiu] (Beijing : Shangwu yinshuguan, 2003), p.20.

⁵ Bernhard Karlgren, ‘Études sur la Phonologie Chinoise’, doctoral thesis, p.32.

between more than 3100 characters of fanqie, he established the series synonymous with *qie* 切. He said that he has obtained a certain number of distinct series under each rhyme, which represents the real finals of ancient Chinese, amounting to the number of about 290. Similarly, he obtained 47 synonymous series designating initials. Then it is necessary among these phonological groups to notice their mutual relations⁶.

3. Reconstruction of ancient Chinese through modern dialects

For the study of Chinese modern dialects, Karlgren didn't choose to do his research on a single dialect and study it thoroughly. However, he came to the method of studying as many Chinese dialects as possible in their important phonological features. He realizes that a phonetic alphabet is an indispensable tool for his analysis. Thus, he uses the Swedish Dialect Alphabet, created by his mentor Professor Lundell, which is used for the narrow transcription of Swedish dialects.

Karlgren will do an in-depth study of 33 Chinese dialects, of which 24 of them are from the voices of the natives, and the others are only known from printed sources. For some dialects there is no perfectly homogenous pronunciation, so he followed the method of choosing an individual, born and raised in the place in question, whose pronunciation Karlgren judged to be representative of the place. Additionally, descriptive phonetics consists of two parts, in which the most important is the study in detail of the qualitative phonetics of the 33 dialects. This analysis refers to noting the position of the phoneme in the character, as initial or final, in open or closed syllables, then the geography of the phoneme, i.e., its appearance in different dialects, and finally its frequency in each dialect⁷.

If classified, there are three types of groups, which are consonants, vowels, and diphthongs. As an illustration, in the consonants, there are the labials (bilabials—*b, p, m*; dentilabials—*f, v*), dentals (e.g., *d, t, n, l, s, z*), dorso-alvéolaires, dorso-alvéolo-prépalatales, dorso-prépalatales, dorso-vélopatales (e.g., *g, k, x*), dorso-vélaires, uvulaires, laryngales (e.g., *h, ʔ*). In the vowels, there are apical vowels (e.g., *ü*), dorsal vowels (front vowels—*i, e, ä, ü, ö*; mixed vowels; back vowels—*u, o, a* vowels). Finally, in the diphthongs, there are type *i-* (e.g., *ie, iä, iö, iu, io, ia*), type *ü-* (e.g., *üi, üe, üä, üu*), type *bi-*, type *u-* (e.g., *ui, ue, uä, uu, uo, ua*), type *-i* (e.g., *ei, äi,*

⁶ 趙元任 [Zhao Yuanren], 羅常培 [Luo Changpei], 李方圭 [Li Fanggui] trans., 中國音韻學研究 [Zhongguo yinyunxue yanjiu], p.59.

⁷ Bernhard Karlgren, 'Études sur la Phonologie Chinoise', doctoral thesis, p.248.

oi, ai), type –ü (e.g., *aiü*), type –ə (e.g., *äa, aə*), type –u (e.g., *eu, äu, ou, au*). And there are also a few numbers of triphthongs with type i–i (e.g., *iii, ioi, iai*), type i–ü (e.g., *iüü*), type i–l, type i–u (e.g., *ieu, iau*) and type u–i (e.g., *uei, uäi, uoi, uai*).

After studying the phonemes of the Chinese, their nature, their geographical appearance, and their position in the character, then Karlgren did historical studies which he took as a starting point the phonological groups of ancient Chinese and examined how the phonic systems of the modern dialects of the ancient language system developed. So, his studies discuss approximately 3125 characters in 33 dialects⁸, and he said that his method is to first analyze the evolution of the initials, tones, and finals of ancient Chinese; then he reviewed the backgrounds of initials, tones, and finals of modern dialects, referring to their origin in ancient Chinese. Additionally, Karlgren, in his study of Chinese phonology, made a classification with a comprehensive register, arranged according to the radicals, where we can find each character its place in the old phonological groups and its pronunciation in 33 dialects.

We will notice that the system of classification of the initials and finals is different, the finals are much more complicated. Thus, through the comparison of the initials and finals between Chinese modern dialects and ancient Chinese, we realize that through time the number of initials and finals decrease constantly, they all have been simplified.

4. The dictionary *Grammata Serica Recensa*

As we can see Karlgren made fundamental contributions to the study of the phonology of ancient Chinese, especially in Middle and Archaic Chinese. He continued his career in 1957 to create a dictionary of Middle Chinese and Archaic Chinese: *Grammata Serica Recensa*. This dictionary is an original creation of Chinese phonetic notation, the first dictionary that can mark the sounds of the Archaic and Middle Chinese and can directly read out the phonetic value. For his research, he needed to refer to the passages in the classics where it occurs and two other key sources: the *Qieyun* (mentioned above) and the *Jingdian shiwen* 經典釋文. He said in his book that:

He has inserted the Ancient Chinese tones of every character, not only its tone with its principal meaning, but also the tone variations it has been undergone when used

⁸ 趙元任 [Zhao Yuanren], 羅常培 [Luo Changpei], 李方圭 [Li Fanggui] trans., 中國音韻學研究 [Zhongguo yinyunxue yanjiu], p.237.

with other shades of meaning or as *jiajie* (phonetic loan character 假借).⁹

For each distinct character, he gave three phonetics representing its pronunciation in Archaic Chinese, Middle Chinese, and Modern Chinese as well as definitions from ancient sources.

As an illustration, the character *jia* 家 has been defined as:

- 32 a—d. kâ / ka / k i a house (Shī); family (Shī); keep a household (Shu). Gl. 2079.
b. is Yin bone (A7:4,₁₅), c. is Yin bone (A7:38,₁), d. is Chou I (inscr. 69). The graph has ‘roof’ (house) and ‘pig’.
e. kâ / ka: / k i a to marry (said of woman) (Shī). — f. *id.* Grain (Shī); to sow (Shī).¹⁰

Additionally, *Grammata Serica Recensa* has not only its value on the study of phonology, but also exegesis and philology and it has also been efficiently used at present in academic areas.

5. Conclusion

In conclusion, phonology was the main area of research of Karlgren’s whole life, in his masterpiece of the study of Chinese phonology (*Études sur la Phonologie Chinoise*), he made an extraordinary connection between the Chinese ancient language and the Chinese modern dialects. The relationship has been built from the method of fanqie and the common characters used in 33 modern dialects. His achievement and deep studying method made a great contribution to the field of phonology through the construction of the phonetic system of ancient Chinese. From the pre-Qin ancient Chinese, associated with modern Chinese dialects, Karlgren made a comprehensive study of the phonetic history of Chinese has been carried out, and the phonetic description of the Middle and Archaic phonetic systems of Chinese has been accomplished, and specific phonetics have been constructed for each phonetic value. This opens a new research method for the study of Chinese phonology and phonetic history.

⁹ Bernhard Karlgren, *Grammata Serica Recensa*, (Stockholm: The museum of far eastern antiquities, 1964), p.2.

¹⁰ Bernhard Karlgren, *Grammata Serica Recensa*, p.28.

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Thesis

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