

An Investigation into the Phonetic Evolution Trend of Chongqing Dialect

-- Taking a Family of Three Generations as an Example

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Abstract

The language use of a family reflects the linguistic characteristics of the region. Adopting the method of sociolinguistic field investigation, this research collects the Chongqing dialectic phonetic materials of three generations of a Chongqing family, analyzes their initials, finals and tones, studies the evolution trend of the pronunciation of Chongqing dialect, and finally explores the factors that lead to the evolution trend. The survey found that it is not salient that the intergenerational phonetic happens, only some typical old-style pronunciations transfer in the third generation: the initials /f//h/ can be distinguished; the final /o/ gradually moves closer mandarin sound /e/; the level tone tends to move towards that of Putonghua. Investigating the reasons, it is found that objective and subjective factors such as pragmatic frequency, educational level, language environment, identity, language ardor, and so on have contributed to the current situation of the phonetic evolution of Chongqing dialect.

Keywords

Chongqing dialect; Phonetic evolution; Three generations of a family.

1. Introduction

Family is the cell of society, and the language use of a family reflects the linguistic characteristics of the region [1]. It is an important topic in sociolinguistics to investigate and research on family language which functions as a tool to know about how dialects or languages interact with each other, how some certain dialects develop in a period, and can help for language standardization [2].

Chongqing dialect as one kind of Southwest Mandarin is regarded as a language variant in sociolinguistics. The study of the evolution trend of language variation is beneficial to grasp the development trend of dialects in the era of rapid popularization of Mandarin, and avoid the language's extinction. At present, there are few investigations and studies on the evolution trend of Chongqing dialect, except Tong Qiumei's research [1] of the evolution trend of Chongqing dialect in immigrant areas, and some others sporadically appeared in a few master's theses [3][4][5].

Adopting methods of field investigation, this research collects the phonetic materials of three generations of a family, analyzes the pronunciation of initials, finals, and tone of the three generations of a Chongqing family, and finally explores the factors that lead to the evolution trend.

2. Data Collection

2.1. Respondents

Case tracking investigation is one main research method for the study of micro-variant sociolinguistic phonetics. This study selects a family with three generations in Chongqing as respondents, a total of 6 people, all of whom are from Zhongxian County, Chongqing City, and their native language is Chongqing dialect. The details of the above six respondents are as follows:

Table 1. Personal information of the 6 respondents

Survey Respondents	Age	Education	Occupation
Older Male	78	Primary School	Farmer
Elderly Female	74	Illiterate	Farmer
Middle-Aged Male	48	Primary School	Migrant Worker
Middle-Aged Female	49	Primary School	Migrant Workers
Young Female 1	23	Undergraduate	Students
Young Female 2	15	Junior High School	Students

2.2. Methods and Materials of Investigation

This research mainly adopts the field investigation method commonly used in sociolinguistics, specifically interview and questionnaire. The investigation materials are divided into two parts. The interview includes phonetic tests of initials, finals, and tones of Chongqing dialect. There are 6 small groups of vocabularies, among which the first three groups are used to test initials, and the last three groups for finals. Taking into account the low education level and poor eyesight of the two elderly people interviewed, the author adopts the form of dialogue with them and guides them to speak the vocabulary contained in the questionnaire. The other four respondents all read them by themselves. This part's pronunciations are recorded by my phone. The second part (see Table 2) is a questionnaire survey to examine the possible factors of intergenerational phonetic changes of the six respondents. Certain Chinese characters in the first part are selected as the pitch analysis material, which is analyzed through speech analysis software praat.

3. Survey Results and Analysis

3.1. Intergenerational Changes in The Pronunciation of Chongqing Dialects

3.1.1. Initials

There are 20 initials (including zero initials) in Chongqing dialect [1]. Words containing three typical pronunciation characteristics of Chongqing dialect initials were selected as testing materials for the 6 respondents. After recording their pronunciations and finishing phoneme analysis, the specific survey result is shown in Table 3.

Table 2. Questionnaire

1. Which one do you usually use at home? a. Chongqing dialect b. Mandarin
2. How often do you take Mandarin as your communicating language with people outside (in schools/units and other public places)? a. Often b. Sometimes c. Rarely d. Almost never
3. if somebody speaks dialect/Mandarin, will you communicate with him in the corresponding language? a. Yes b. No
4. Do you often watch TV or surf the Internet? a. Often b. Sometimes c. Rarely d. Almost never
5. can you speak other dialects? a. Yes b. No
6. What do you prefer to speak? a. Chongqing dialect b. Mandarin c. Other dialects

Table 3. Results of intergenerational survey on initials

	Older male	Older female	Middle-aged male	Middle-aged female	Young female 1	Young female 2
男-蓝/柠-龄	n-n/n-in	n-n/n-in	n-n/n-n	n-n/n-n	n-n/n-n	n-n/n-n
蜘-池-狮	ts-ts'-s	ts-ts'-s	ts-sts'-s	ts-ts'-s	ts-ts'-s	ts-ts'-s
户-虎	f-f	f-f	f-fh	f-f	h-h	h-h

After observation of the phonemes of the initials in Table 3, some changes can be found as follow:

3.1.1.1 /f/ and /h/ Gradual generational differentiation

In the Chongqing dialect, phoneme /h/ is pronounced as/f/. In this survey, the two elderly people pronounced “户-虎”(hu) as /f/ instead of /h/. Among the two middle-aged people, the male's pronunciation gradually changed from /f/ to /h/, and there is no change in females, same as that of the two old people. But different from the former two generation's pronunciation, the two young females of the third generation enunciate “hu” as /h/, which only appears in Mandarin. Thus, it can be shown that the third generation makes it that their pronunciation is gradually approaching that of Mandarin on phoneme /h/.

3.1.1.2 no generational phonetic distinction between nasal-lateral, and flat-raised sounds

In Chongqing dialect, nasal /n/ and literal /l/ are both pronounced initial, while there is a clear distinction between /n/ and /l/ in Mandarin. In this survey, the pronunciation of the word “蓝”(lan) in the three generations is /n/, which is the typical pronunciation of Chongqing dialect; the pronunciation of “龄”(ling) from two elderly is slightly different from that of the next two generations, adding phoneme /i/. In general, the pronunciation of the /l/ and/n/does not been distinguished significantly among the three generations.

In Chongqing dialect, the initials without the tip of the tongue are pronounced [ts ts' s], same as those in need of tongue raising. In this survey, almost all the three generations of “蜘”(zhi), “池”(chi) and “狮”(shi) pronounced them into [ts ts' s] respectively, except that the middle-aged man pronounced "chi" with a more /s/ in front of it.

3.1.2. Finals

There are 37 finals in Chongqing dialect [1]. Words containing three typical pronunciation characteristics of Chongqing dialect finals were selected as testing materials for the 6 respondents. After recording their pronunciations and finishing phoneme analysis, the specific survey result is shown in Table 4 below.

Table 4. Intergenerational survey results of finals

	Older male	Older female	Middle-aged male	Middle-aged female	Young female 1	Young female 2
喝-蛇-割-色	o-ε-o-ε	o-ε-o-ε	eo-ε-o-ε	o-ε-o-ε	o-ε-e-ε	e-ε-e-ε
黑-北	ε-ε	ε-ε	ε-ε	ε-ε	ε-ε	ε-ε
晴-羸/剩-正	in-in/ən-ən	in-in/ən-ən	in-in/ən-ən	in-in/ən-ən	in-in/ən-ən	in-in/ən-ən

3.1.2.1 /e/gradually standardized from /o/

Final “e” in Mandarin is pronounced as /o/ or /ε/ in Chongqing dialects. In this survey, when the first two generations pronounced the finals in “喝-割”(he-ge) almost /o/ instead of /e/; girl 1 read “喝” as /o/ and “割” as the orthodox /e/; both Chinese characters were orthodoxly enunciated as /e/ for the girl 2. However, “蛇-色”(she-se) with the same final were both pronounced /ε/ for the three generations, which is not the orthodox /e/ final. It can be seen that the /o/ is moving to the orthodox /e/ inter-generationally.

3.1.2.2 no intergenerational distinction among /ei//ε/, /in//i̯/, /ən//ə̯/

“黑、北”(hei-bei) are read /ei/ in Mandarin, and /ε/ in Chongqing dialect. In this investigation, all three generations read “黑、北”(hei-bei) as /ε/, meaning that there is no intergenerational change of sound /ε/.

Besides, there is no rhyme /i̯//ə̯/ in Chongqing dialect, only /in//ən/. It can be viewed from table 4 that what the three generations pronounced “晴-羸/剩-正”(qing-ying-sheng-zheng) all was the front nasal /in//ən/. So there happens no intergenerational distinction between the front and back nasals.

3.1.3. Tone

There are four tones in Chongqing dialect [1], which are Yin-ping, Yang-ping, Shang-sheng, and Qu-sheng [6]. Generally, the traditional pitch of the four tones is recorded as 55, 21, 42, and 214 [7], the experimental, 45, 31, 341 and 213 [8], and 55, 35, 214, 51 in Mandarin [1]. This study takes the experimental one of Chongqing dialect as a reference. Since the subjects of this study are from Zhongxian County, Chongqing, although Zhongxian dialect is subordinate to Chongqing dialect, the pitch of voice of Zhongxian County is slightly different.). Selecting one Chinese character of the four tones of Chongqing dialect from the former chart, this research applies software praat to draw a graph of pitch fundamental frequency (as shown in Fig. 1) to compare the tones of Chongqing dialect and Mandarin.

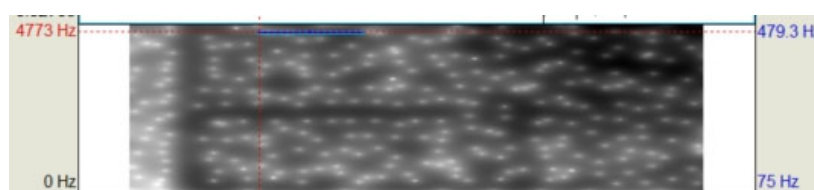


Figure 1. Trend of pitch fundamental frequency (taking the sound of character “蚰”(zhi) from young girl 1 as an example)

Sounds of “蚰-柠-口-剩”(zhi-ning-kou-sheng) that respectively represent the four tones of Chongqing dialect of the six respondents were led into praat for a pitch fundamental frequency trend map. Afterward, the results are shown in Table 5. From this table it can be found that:

Table 5. Test results of the value of tones

	Older male	Older female	Middle-aged male	Middle-aged female	Young female 1	Young female 2
蚰	45	45	12	12	55	22
柠	212	212	12	212	22	32
口	331	331	331	332	32	33
剩	214	214	213	213	23	213

3.1.3.1 Yin-ping tone moving towards Mandarin

“蚰”(zhi) in this test shows its tone value as 45 Hz for the two elderly people, which is consistent with the typical Yinping tone of Zhongxian dialect in Chongqing. However, the tone value of the two middle-aged people is 12, quite different from the traditional and experimental tone of Chongqing dialect, indicating a great intergenerational tone change. The pitch of voice of the elder girl matches the tone of Mandarin, but the tone of the younger one is similar to that of the two middle-aged men. However, it is generally foreseeable that the Yinping tone develops towards the Mandarin tone with the passage of generations.

3.1.3.2 The four tones of Chongqing dialect staying put

Results of “柠”(ning) show that the tone of the elderly and middle-aged generations does not change a lot, which is still consistent with that of Zhongxian dialect in Chongqing. But in the third generation, the young woman raises her tone though keeping it within the range of Chongqing dialect. All the results of “柠”(ning) indicate that there is no obvious intergenerational change in the pitch value of Yangping. From the tone results of the word “口”(kou), it can be seen that nearly the three generations do not make it changed much, still tones of Chongqing dialect. For the test results of the last word “剩”(sheng), the three generations were tested out to be the tone of Chongqing dialect.

3.1.4. Summary

In general, it is not obvious that the intergenerational changes of the Chongqing dialect happen to the three generations. The pronunciation of the elder generation still maintains the typical old-school pronunciation of Chongqing dialect. However, some changes of typical old-school pronunciations indeed significantly happen to the third generation. For example, initials /f//h/ can be distinguished in the third generation; the typical finals of Chongqing dialect /o/ are closer to the sound of Mandarin /e/; the Yinping tone of the third generation evolves to the Mandarin tone.

3.2. Analysis of The Reasons for the Intergenerational Change of Chongqing Dialect Pronunciation

The process of language use is affected by many factors, such as objective factors such as gender, age, occupation, education, living environment, etc., as well as subjective factors such as personalities, habits, etc. thus, the same factors go with intergenerational changes in phonetics of Chongqing dialect. This part aims to explore the reasons for the intergenerational changes in the three generations of Chongqing dialect phonetics through questionnaires. According to the

results of the respondents, it is finally found that there are five factors for the intergenerational change of speech: speaking frequency, personal education, language locale, identity, and language ardor.

3.2.1. Speaking Frequency

In general, the more frequently a language is used, the easier its pronunciation is to be fixed. Judging from the results of the questionnaire survey, all six respondents answered "Chongqing dialect" to question 1, which shows a high frequency of dialects in their family. For the answer to question 2, the first and second generations answered "basically none", the young woman 1's answer is "rarely", and the young woman 2 is "frequently", which means that Chongqing dialect is spoken in a high frequency for the first and second generations and in a descending frequency in the third generation, eventually moving closer to Mandarin. Based on the answers to questions 1 and 2, the speaking frequency of Chongqing dialect in the first and second generations is almost 100%, while dropping in the third generation. It can be confirmed that language-speaking frequency is one of the main reasons for the change of pronunciation in the old-school Chongqing dialect to Mandarin.

3.2.2. Education

The level of education affects a person's language learning ability, influencing his language and pronunciation changes. As for education, the four members of the first and second generations belong to the low level, plus their older age, implicating that their pronunciation is basically solidified and hard to be changed by external influences, and they are of low learning ability. In contrast, the third generation with younger age and a higher education level are endowed with a stronger language resilience, so as to be easily driven by external factors, and finally, the pronunciation of the third generation of Chongqing dialect appears to change toward other pronunciations.

3.2.3. Locale

The language setting is like the culture medium of seeds, which will affect the language ability of speakers eventually and silently. From the overall responses to question 4, the younger generation watches TV and surfs the Internet much more frequently than the older ones, making it that more exposures to multiple languages (mainly Mandarin) happen to the younger generation. So, a tendency gradually emerges that the initials and finals of the Chongqing dialect in the younger generation transfer to Mandarin. In addition, since the three generations usually live in Chongqing or Chengdu, the three generations still pronounce Chongqing dialect as a whole except for a relatively high frequency of Putonghua tone of young women 1 during her college time.

3.2.4. Identity

Zhao Peng & Tian Hailong [9] pointed out that language variants speak for the construction mechanism of new social identities. Chongqing dialect occupies the mainstream position in Chongqing. Therefore, that Chongqing people speak other dialects or show their accent changes reflects their purpose of showing their unique social identity from a psychological angle. The results of this survey show that two elderly and middle-aged men answered "no" to question 3, and two young and middle-aged women answered "yes", implicating that the younger generation more seeks the construction of new social identities in order to pursue identity. From this, it can be roughly inferred that the dialect pronunciation of the younger generation has changed in order to achieve identity. The first and second generations still adhere to their identity as Chongqing people and live in Chongqing for a long time, thus they are more akin to the local people and reluctant to change their pronunciation in order to integrate into a new group.

3.2.5. Language Ardor

Linguistic dour talks about whether the speaker has a strong or weak feeling for the spoken language, and it impacts whether the spoken language is used or not [10]. People who own strong feelings for the language they used to speak. If they speak the language often, the influence of other languages on it will be cut down and so the pronunciation of this language gets hard to be changed. Therefore, a person's passionate intensity towards a language is inversely proportional to the probability of language change. Question 6 of the questionnaire examines the language ardor of respondents. The six respondents answered this question in "Chongqing dialect", proving that their emotion towards Chongqing dialect is stronger than that of other dialects. So it can generally explain the results of the phonetic test - the intergenerational pronunciation in the three generations of Chongqing dialect does not change obviously.

4. Conclusion

It is found that through this field research due to factors such as speaking frequency, locale, identity, language ardor, the pronunciation of Chongqing dialect begins a slow tendency towards Mandarin inter-generationally, while in a slow stage. It means that Chongqing dialect is still in a unique phonetic vitality. Among people of different ages, the old and middle-aged people are more conservative in their language attitudes. Because they are used to speaking in dialect since childhood, having a deep affection for their mother tongue, their pronunciation hardly changes; for the youth, they are in the climbing stage of life, it is easier and more active to contact or learn other dialects or languages, so their Chongqing dialect pronunciation has some changes, especially towards Mandarin pronunciation.

References

- [1] Q.M. Tong: The Trend of Dialect Evolution of Three Gorges Immigrants from the Three-Generation Language Variation of a Family, *Journal of Mudanjiang Normal University (Philosophy and Social Sciences Edition)*, (2016) No.05, p.81-85.
- [2] Z.T. Chen. The Language Life of Four Generations in the Same Family: a Preliminary Investigation of the Language Use of Chen Yannian's Family, *Language Construction*, (1990) No. 03, p.17-19.
- [3] X. Wan: A Survey of Dialect Phonetics in Six Districts and Counties of Chongqing (MS., Sichuan Normal University, China 2018), p.38-40.
- [4] X.P. Wen: Research on the Phonetics of Pengshui Dialect in Chongqing (MS., Sichuan Normal University, China 2020), p.50-60.
- [5] Y.O. Zhou: A Survey and Research on Dialect Phonology in Seven Districts and Counties in Central Chongqing (M.S., Sichuan Normal University, China 2018), p.38-45.
- [6] M.X. Ming: The Phenomenon of Special Tones in Chongqing Dialect, *Journal of Chongqing University of Arts and Sciences (Social Science Edition)*, Vol. 35 (2016). No.01, p.56-59.
- [7] S.Y. Zhai: *The History of Chongqing Dialects* (Southwest Normal University Press, China, 1996), p. 135.
- [8] M.X. Ming, X.C. Zhang: On the Tone Pattern and Evolution Mechanism of Chinese Dialects, *Journal of Southwest University (Social Science Edition)*, Vol.41 (2015) No. 04, p.145-155+192.
- [9] P. Zhao, H.L. Tian: New Developments in Variation Sociolinguistics Research, *Modern Foreign Languages*, Vol. 45(2022) No. 01, p. 137-147.
- [10] X.Y. Guo: The Development Trend of Zunyi Dialect Adolescent Pronunciation, *Journal of Guangxi University for Nationalities (Philosophy and Social Sciences Edition)* (2006) No.01, p. 248-249+296.