

Phonetic Changes of Eastern Yugur Language--- Case Study of Vowel /e/

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Abstract. As one of the two native languages of Yugur Nationality, Eastern Yugur language is already an endangered language and is still constantly changing. In order to get a better understanding of the nature of Eastern Yugur language for the sake of both language protection and pedagogy, the article focuses on vowel /e/ and discusses the changes of this very vowel: in unstressed syllable /e/ is reduced, omitted and devoiced, and some of these changes have been reflected in the spelling. Consonants [ʃ, ʃ^h] can trigger diphthongization of /e/, but the reasons behind this is the influence of Chinese upon Eastern Yugur language through language contact.

Introduction

As one of the 56 officially acknowledged nationalities in China, Yugur nationality is one with a small population (14378 according to China Population Census in 2010) and mainly inhabited in Gansu Province (Sunan Yugur Autonomous County of Zhangye City and Huangnibu Yugur Autonomous Township of Jiuquan City). Though Yugur nationality has a small population, their history dated back to Tang Dynasty (618—907 A. D.). The ancestry of Yugur nationality is universally acknowledged to be Huihu (another name of Huihe), and those Huihu people had built their own empire in West China in history. With the fall of Huihu empire, Huihu people migrated westward in three groups, and one of these group migrated into Hexi Corridor, maintained close relationship with Tang and Song Dynasties, and these people are the ancestors of Yugur Nationality.

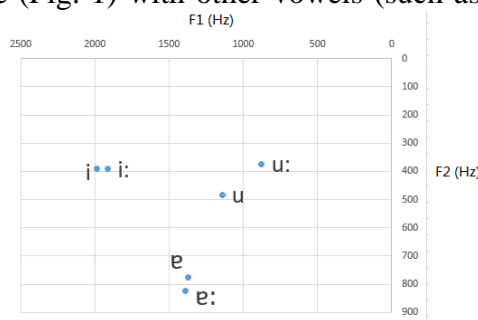
During its development, Yugur nationality had close contact with neighboring nationalities such as Mongolians, Tibetans and Han nationality. This very contact left great influence upon the culture and languages of Yugur nationality. Presumably, the ancestors of Yugur Nationality once used Huihu language, but little trace has been left. For century, Yugur people spoke their own ethnic languages without a writing system, which is actually a huge obstacle to trace back to the original picture of languages used by the ancestors of Yugur nationality. Though there were sporadic documentation about Yugur people in history books, little is known in term of their life, societal structure, economy and languages. It was G. N. Potanin (1835-1920) who drew scholars' attention to this very ethnic minority in Northwest China. He had noticed that these people shared the same ethnic name --- Yogur, with different modifiers: Shira (yellow) Yogur and Xara (black) Yogur); and they speak two different languages respectively: the tribes of Shira Yogur speak a Mongolian language and Xara Yogur speak a Turkic language, which are late respectively called Eastern Yugur language and Western Yugur language (mainly due the locations of their inhabitation). In terms of these ethnic languages, Potanin's contribution lies in the listing and comparing 200 basic Yugur words (with Russian equivalents), cardinal numbers and some simple sentences. With his original work, many western scholars followed his footstep, came to this inhabitant land and studied these two languages respectively and comprehensively.

So far as Eastern Yugur language is concerned, the academic effort started by western scholars since 1880s and the domestic survey of ethnic languages in 1950s had aroused academic interest in Eastern Yugur language, and laid a solid foundation for the further study of this very language. So far scholar have collected basic vocabulary, the stories and legends recorded in Eastern language. With the help of modern academic perspective and technology, scholar are able to probe into the

nature of this very language, and get a better understanding of it. However, for some reason, the use and study of Eastern Yugur language are far from the ideal. The speakers of Eastern Yugur language are increasingly decreasing and aging, and this very language has already become an endangered language. Besides that, the Eastern Yugur language has changed greatly in terms of phonetics and phonology. The article tries to offer a glimpse of phonetic and changes of Eastern Yugur language through the discussion of vowel /ə/.

Distinctive Features of Vowel /ə/

Phonologically speaking, no matter how many phonemes a language has, there must be at least these three fundamental phonemes /i, ə u/ forming a vowel triangle. In Eastern Yugur language, three vowels also form a quite regular triangle (Fig. 1) with other vowels (such as /y, e, ø, u, ɔ /)



along the lines of the triangle or within it (/ə/).

Fig. 1 Vowel Space of Eastern Yugur Language

Since there is no writing for Eastern Yugur, so far this very language has once been recorded in various alphabets of many languages (such as Russian, Swedish, Turkic, Chinese Pinyin and characters). The contribution of these writing system is obvious, but they also caused many problems. As for vowel /ə/, alphabetic symbols “a” and “ɑ” are used, indistinguishably, which sometimes actually misleads readers. In terms of phonology, previously, some scholars mistakenly described this very vowel as “back, low and unrounded”. So far with the help of experimental phonetics, the acoustic parameters show that /ə/ is a “mid” rather than “back” vowel, and the phonetic symbol should be /ə/ rather than /a/ or /ɑ/. [a] and [ɑ] can only be regarded as allophones of the phoneme /ə/ [1]. In Eastern Yugur language vowel duration is a distinctive feature of phonology. There are noticeable differences between so-called short and long vowel (scholars of Mongolian languages also use terms “tense” and “lax” to distinguish these two types of vowels. As it is shown in Fig. 1, long vowel /ə:/ is a bit lower than corresponding short vowel /ə/, and this is almost exactly the same as vowel /ə, ɐ:/ in Mongolian language [2]. When Bolčuluu and Jalsan [3] analyzed the corresponding relationship between short and long vowels in Eastern Yugur, they have listed 20 pairs of minimal contrast such as “xana”(where)---“xanaa-”(to cough), “xan-”(satisfy) ---“xaan”(the king/emperor), “xura”(rain) --- “xuraa-”(to fill). However, up to now, most of speakers cannot distinguish these 20 pairs of words only through the vowel duration variations. For the speakers of Eastern Yugur language in our survey, most of these words are just homophones, and some speakers can only distinguish them with the help of grammatical means (such as suffixes) rather than phonetic means. Of course, a few words like “taβən” (fifty) --- “taaβən” (five) still maintain their phonetic differences. Based on the phonetic materials collected, it is safe to draw a conclusion: The vowel duration is still a distinctive feature for vowels of Eastern Yugur, but its role is on the decrease. Thus, words spelling with a long vowel /ə:/and a short /ə/ co-exist in different publications, and many of these are mainly due to different subjective perception of both speakers and listeners of Eastern Yugur language, here are some examples: “naa-” --- “na-” (to fall), “naitaa-” --- “naita” (to sneeze), “hdzan”--- “hdzaan”(a load carried by a pack-animal).

Reduction of Vowel /ə/

In a multi-syllable word, vowels in unstressed are usually reduced. Thus there is no one-to-one correspondence between letters and phonetic symbols. Take English letter “a” as an example: letter “a” in words “face”, “cat” and “ago” are respectively pronounced as [ei], [æ] and [ə]. The pronunciation rules go as follows: letter “a” in a stressed open syllable is usually pronounced as [ei], in a stressed close syllable as [æ], and in an unstressed syllable as [ə]. As for Eastern Yugur language, there is much discussion about vowels reduction concerning the evolution of Easter Yugur language from common Mongolian language, and this has been comprehensively analyzed by Bolčuluu and Jalsan. In an unstressed syllable, vowel /ə/ is usually reduced, while in spelling this reduction sometimes is not indicated; sometimes with diacritic “” such as in “malāgai” (hat), “salqān” (wind), etc., and now a reduced /ə/ is often transcribed as a schwa /ə/ such as in “bajan” “bəjan” (rich), “alga-” --- “əlga-” (to choose, select; distinguish), “araka” --- “arəka” (alcoholic beverage) etc.. This is the main reason why there are various forms of spelling in Eastern Yugur language. In practice, some scholars try to differentiate the writing symbols and phonetic symbols, but others just treat them as one. This result in inconvenience and misunderstandings. When this kind of reduction goes to an extreme, the omission of vowel /ə/ takes place, such as “andagar” --- “ndagar” (oath), “arasən” --- “arəsən” --- “arsən” (skin, hide). This is diachronic change of Easter Yugur language, and has been profoundly discussed in comparative study of Eastern Yugur language and other languages of Mongolian in terms of historic phonetics.

Another form of vowel reduction is devoicing. Vowel devoicing is observed in some languages. Vowel devoicing is a noticeable phenomenon in Japanese: A vowel is devoiced if it is either /u/ or /i/ and it is between voiceless consonants or at the end of a sentence. We have also observed this phenomenon in Easter Yugur language; just like Japanese, devoicing usually happens to vowel “i” as in words “fīdʒə” (human back). However, the vowel devoicing is not confined to so-called “high” vowels, it does happen to “non-high” vowels (such as /ə/ and /ɔ/ in unstressed syllable). Fig. 2 is

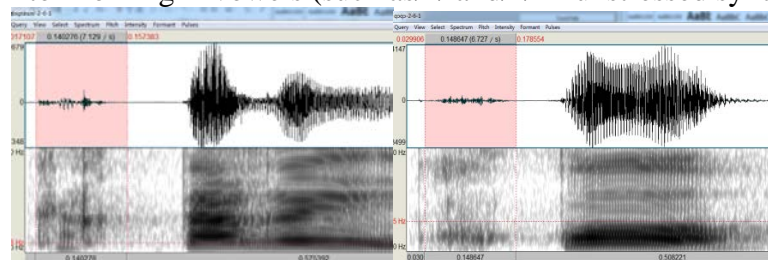


Fig. 2 “fagtāgai” (cheek) “qəqə” (body)

the waveform and spectrum of “fagtāgai” (cheek), “qəqə” (body), the selected part of both words (the first syllable for both words) indicated the devoiced vowel /ə/ and /ɔ/. It is different from omission of target vowels. In the syllable with a devoiced vowel, there is still perception of vowel, and the duration of syllable almost remains unchanged.

Diphthongization of Vowel /ə/

There are some diphthongs in Easter Yugur language, such as / ei, ɔi, əi/ etc. Generally, most scholars would agree that there is no such diphthong as / iə/ in Eastern Yugur Language itself, though Junast [4] once recorded examples with this very diphthong: “tiag” (walking stick), “biar” (joy, happiness); Bolčuluu [5] treated these words as an example of palatalization of consonant and transcribed them respectively as “tjaac” and “bəjar”. Thus this is actually a consonantal cluster at the initial place of the word. Since in Junast’ work other words with diphthong /iə/ are all loan words from other languages (mainly Chinese), it is natural to acknowledge that [iə] is an allophone rather than a phoneme, or at most a phoneme only used in loan words. In this study, we have found diphthongization of vowel /ə/ is perceivable both physically and acoustically (as in “dʒagqāl-” (lightning), “gadʒaar” (land, earth, soil), “ŋgarʃac” (packsaddle), “quʃa-” (to bark), “arʃa” (cypress), “gaʃaqəi” (Saker Falcon). From the cited examples, it seems apparent that diphthongization of /ə/

usually takes place after consonants [ʃ, ʃʰ] (/e/ is also diphthongized and much oftener than /ə/). It seems that consonants [ʃ, ʃʰ] are the phonetic condition for the diphthongization of /ə/ (the phonetic condition of /e/ is very different from that of /ə/), but after careful observation, we find that not all /ə/s after these consonants will be diphthongized, there is no diphthongization in the following words: “dʒaluu” (young person), “dʒaa-” (to teach), “dʒaar” (musk), “dʒasən” (snow), “dʒaɸsar” (space or time between, interval), “hdʒan” (a load carried by a pack-animal), “maɸaltʃʒaɸ” (ankle), etc. We assume that consonants [ʃ, ʃʰ] can only trigger diphthongization of /ə/, but they are not the determiners. Further study shows that the frequency of diphthongization of /ə/ varies from speakers of different ages --- the younger the speakers are, the more likely it is for them to diphthongize vowel /ə/. The reason behind this phenomenon is that the younger speakers tend to pronounce [ʃ, ʃʰ] in Eastern Yugur as [tɕ, tɕʰ] in Chinese, in which consonants [tɕ, tɕʰ] do not go with vowel “a” (in Chinese it is transcribed as [A]), and just go with “ia” (transcribed as [iA]). Therefore, the diphthongization of /ə/ is the direct influence of Chinese language upon Eastern Yugur language (It is the same case for vowel /e/). As it is shown in Figure 2, there is apparent difference between a diphthongized /ə/ (in “hrʃʃa”) and un-diphthongized /ə/ (in “ʃʃad”). If /ə/ is diphthongized, on the spectrum, Formant 1 and 2 of vowel /ə/ show striking features: at the very beginning of the very vowel, F1 goes down, F2 goes up, and there is an obviously perceivable transition. All the features are very like those of a diphthong /ie/. So far the diphthongized /ə/ has not been noted in any publication of Eastern Yugur language.

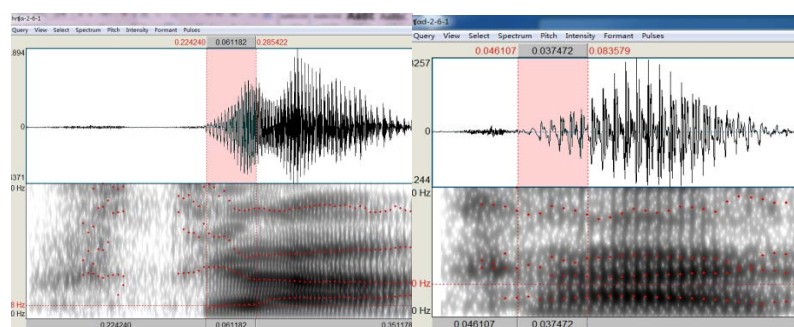


Fig. 3 “hrʃʃa” by Female Speaker 6 “ʃʃad” by Female Speaker 6

Summary

In sharp contrast with steadily increased population of Yugur people, the ethnic languages of Yugur Nationalities have already become endangered ones. The striking features are: fewer and fewer Yugur people can speak their own ethnic languages, and the speakers of both Eastern and Western Yugur languages are increasingly aging, most fluent speakers are over 60 years old, some are even over 80. The language competence of the speakers under 60 are noticeably influenced by neighboring languages (especially Chinese language) through language contact. So far as vowel /ə/ is concerned, there are still some apparent changes over decades of years. Some of the changes just indicate some features of language universals: vowels in an unstressed syllable tend to reduce, omit and be devoiced. These types of changes belong to phonetic changes of Eastern Yugur language. The triggers of these phonetic changes are internal drive of Eastern Yugur Language. However, as for diphthongization of /ə/, though it usually happens after consonants [ʃ, ʃʰ], it is more likely that this diphthongization is under the influence of Chinese language and it is the result of language contact. This recognition will help us get a better understanding of Eastern Yugur language, and is of great pedagogical significance in the learning and teaching of Eastern Yugur language.

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