

PROCESSES OF PALATALIZATION AND AFFRICATION IN THE QAZAKH DIALECT OF THE WESTERN GROUP OF THE AZERBAIJANI LANGUAGE

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Abstract. The present article examines the processes of palatalization and affrication in the Qazakh dialect of the western group of the Azerbaijani language. The aim of the research is to determine the structural nature of these phonetic-phonological phenomena, to define their articulatory basis, and to differentiate their functional characteristics.

Traditionally, several sound changes ($d \rightarrow \check{c}$, $k \rightarrow \check{c}$, $\text{q} \rightarrow \check{z}$) have been treated within the framework of affrication; however, the analysis of dialectal material demonstrates that these transformations are not realized through a uniform phonetic mechanism. The study is based on empirical data and employs the methods of articulatory phonetics and comparative dialectology.

It has been established that $k \rightarrow \check{c}$ and $\text{š} \rightarrow \check{c}$ represent cases of affrication, since the transformation of a stop consonant results in a complex consonant containing a fricative component and is not dependent solely on adjacency to a palatal vowel. In contrast, the changes $d \rightarrow t \rightarrow \check{c}$, $\text{q} \rightarrow \check{z}$, $k \rightarrow j$, and $g \rightarrow j$ are identified as results of palatalization, as they develop on the basis of positional sound coalescence and articulatory assimilation.

The findings demonstrate that palatalization and affrication in the Qazakh dialect are formally similar but mechanistically distinct processes, which necessitates their clear terminological and systemic differentiation. The study highlights the independent phonetic features of the Qazakh dialect and its significance for Turkological research.

Keywords: affrication; palatalization; positional assimilation; Qazakh dialect of the Azerbaijani language; western group of the Azerbaijani language.

Introduction. The Qazakh dialect of the Western group of the Azerbaijani language attracts particular interest from the perspective of phonetic-phonological processes, since it exhibits sound changes that differ both structurally and functionally from the literary norm. Among these processes, affrication and palatalization are especially relevant, the relationship and differentiation of which have not yet been clearly distinguished.

Traditionally, a number of sound changes (e.g., $d \rightarrow \check{c}$, $k \rightarrow \check{c}$, $\text{q} \rightarrow \check{z}$) are grouped under affrication; however, a detailed analysis of empirical material shows that not all such transformations are based on the same phonetic mechanism. Therefore, it becomes necessary to determine whether the given changes are the result of affrication or represent a multi-stage process of palatalization that develops through sound combination and articulatory assimilation.

The aim of the present article is to determine the structural nature of these processes in the Qazakh dialect of the Western group of the Azerbaijani language, to identify their articulatory basis, and to highlight functional differences.

Research Methods. The study is based on empirical dialectal material analyzed according to the principles of articulatory phonetics. A comparative-dialectological method was employed, which involves comparing data from the Qazakh dialect with both the literary Azerbaijani language and material from other Turkic languages and dialects.

During the analysis, particular attention was paid to the positional environment of sounds, the articulatory zone, the factor of adjacency to vowels, and the results of sound combination. Each transformation was evaluated both structurally and functionally, allowing a clear differentiation between affrication and palatalization.

Discussion. Affrication is an important type of sound combination, which involves the transformation of a simple consonant into a complex consonant. Affrication refers to the process in which a simple consonant becomes complex, resulting in an affricate [Akhvlediani, 1938:128]. In the Qazakh dialect of the Azerbaijani language, affricates are obtained during the transformation of the following consonants, for example:

$d \rightarrow \check{c}$	$\check{c} \rightarrow c$
$k \rightarrow \check{c}$	$c \rightarrow \check{c}$
$\check{s} \rightarrow \check{c}$	$\check{z} \rightarrow \check{c}$
$\check{t} \rightarrow \check{z}$	$\check{z} \rightarrow \check{z}$

Among the above processes, in my view, affrication involves only $k \rightarrow \check{c}$, $\check{s} \rightarrow \check{c}$, whereas $d \rightarrow \check{c}$, $\check{t} \rightarrow \check{z}$ are attributed to palatalization, $\check{c} \rightarrow c$ and $\check{z} \rightarrow \check{z}$ to devoicing, and $c \rightarrow \check{c}$, $\check{z} \rightarrow \check{c}$ to fortition.

We agree with G. Akhvlediani's view that "affrication has a genetic connection, apparently, with palatalization: just as the governing consonant changes to a palatalized consonant there, here during the governing process of a given consonant, a homorganic spirant transitional sound arises" [Akhvlediani, 1949:128]. As during palatalization a consonant changes its articulatory zone and acquires a palatal element, similarly, in the process of affrication some plosive consonants, during transformation, develop an organic spirant layer, which ultimately yields an affricate consonant. As a result, an affricate consonant combines both plosive and spirant components. "Each affricate consists of a plosive plus a spirant, i.e., an affricate has a plosive onset and a spirant ending. Therefore, in the French linguistic literature, affricates are called semi-plosives" [Zhghenti, 1956:146].

As is known, the literary Azerbaijani language has two affricates: $\check{c}$ and $\check{z}$, but in some accent of the Qazakh dialect of Azerbaijani, there are four affricates: $\check{z}$, $\check{c}$, $\check{z}$, c . "It is generally accepted, for example, that Russian affricates t͡s and t͡ʃ are obtained by merging ts and tʃ (we do not consider sound change such as this)" [Akhvlediani, 1938:130]. "The component sounds of these affricates are simple consonants: $\text{d}=\text{დ}$, $\text{g}=\text{გ}$, $\text{v}=\text{ვ}$, $\text{x}=\text{ღ}$, $\text{h}=\text{თ}$, $\text{q}=\text{ქ}$. Each affricate differs from a simple consonant in its complex articulatory movements" [Zhghenti, 1956:145]. Accordingly, the composition of Azerbaijani affricates (from the perspective of merging) is usually represented as:

$\check{z} = dj$	$\check{z} = tz$
$\check{c} = tʃ$	$c = ts$

Based on empirical material, we can conclude that in the Qazakh dialect of the Azerbaijani language, the affrication process $k \rightarrow \check{c}$ is widespread. Let us consider this process:

➤ **$k \rightarrow \check{c}$:** k is a mid-back voiceless consonant. It occurs with both front- and mid-vowels (i , $ü$, $ö$, e , $ä$) and back vowels (a , o , u). According to Axundov, "this process is not found in historical monuments of the Azerbaijani language," and the change of k to $\check{c}$ is associated with the influence of the following vowel (the articulation of k is drawn forward and resembles $\check{c}$). I believe this view would be acceptable only if k were used as $\check{c}$ only in the environment of palatal vowels, but this process occurs not only with palatal (soft) vowels

but also with non-palatal, i.e., hard vowels. Therefore, the process of $k \rightarrow \check{c}$ should be attributed to affrication, since $\check{c}$ occurs not only with palatal but also with back vowels.

$k \rightarrow \check{c}$ in the environment of front- and mid-vowels, in both initial and non-initial positions (i, ü, ö, e, ä), e.g.:

keçi → čeci - goat
küčä → čücä - street
käläm → čäläm - cabbage
küftä → čiftä – meatballs
häkim → häčim - doctor
könüllü → čönüllü - voluntary
ikižä → ičižä – only / just two

$k \rightarrow \check{c}$ with back vowels (excluding o and a, including ə, u), e.g.:

kayəz → čayəz - paper
kar → čar - deaf man
kol → čol - bush
kom → čom - bundle

According to M. Shiraliyev, these processes are rare in Turkic languages [Shireliyev, 2008].

The processes $k \rightarrow \check{c}$ and $q \rightarrow \check{z}$ are also widespread in the Anatolian, Trabzon, and Erzurum dialects; e.g., četirdi (cf. getirdi “brought”), žetdi (gitdi “went”), čöpek (köpek “dog”), čim (kim “who”), čiši (kiši “man”) [Jaferoğlu, 1944: 183-195].

- $\check{s} \rightarrow \check{c}$: a rare process, occurring in only two words, e.g.:

garanguš → garanguč - swallow
šüjüd → čüt / šüjüt - fennel

Palatalization, i.e., softening, is a sound combination in which the anterior part of the tongue articulates toward the hard palate. This articulation may manifest as contact with or approach to the palate [Akhvlediani, 1949:125]. Palatalization is a type of assimilation, in which the vowel is softened by a nearby soft consonant, and conversely, a consonant undergoes palatalization under the influence of a palatal vowel. Palatalization in Azerbaijani occurs both in vowels and consonants.

In the Qazakh dialect of Azerbaijani, the following palatalization processes can be distinguished:

$d \rightarrow t \rightarrow \check{c}$
 $k \rightarrow j$
 $q \rightarrow \check{z}$

That is, in the Qazakh dialect, consonants that are already palatal undergo further softening in the environment of palatal vowels. Palatal (soft) vowels are those that induce palatalization, namely front- and mid-front vowels. “Acoustically, soft and palatalized sounds are characterized by high timbral tones” [Akhvlediani, 1949:126].

Let us consider each process individually:

➤ **$d (\rightarrow t) \rightarrow \check{c}$** : According to M. Shiraliyev, “the $d \rightarrow \check{c}$ process is recorded only in the Qazakh dialect of Azerbaijani and in a few words before a closed vowel” [Shireliyev, 2008:78]. The change of d to $\check{c}$ is not found in any other dialect of contemporary Azerbaijani, except the Qazakh dialect of the Western group [Akhundov, 2007:194]. Hence, this process can be considered a characteristic of the Western dialect.

The d (→ t) → č change occurs word-initially, in the first syllable, when a closed, front palatal vowel (i and ü), whose governing moment is raised toward the hard palate, stands between d and š. Before d changes to č, it undergoes several steps: first devoicing, d → t, then palatalization,

t → č:

d (→ t) + palatal vowel + š = č

As we can see, t is palatalized by the following i or ü, whose articulation is raised toward the hard palate; at the same time, the preceding devoiced consonant influences the neighboring sound, transferring directly to the articulation of the next soft vowel.

Hence, in the Qazakh dialect, the combination di, dü and d + non-palatal closed vowel (e.g., du, də...) produces two different variants of d, resulting in a palatalization process, e.g.:

düşmāk → tüšmäṯ → čüşmäṯ – falling

diš → tiš → čiš – tooth

diši → tiši → čiši – female

düşman → tüšman → čüşman – enemy

dišlāmā → tišdäṯ → čišdäṯ – bite

düşbārā → tüšpārā → čüşpārā – dushbara (Azerbaijani dumplings)

düşkün → tüškün → čüşkün – a person having weakness (for)

düşük → düšük → čüşüṯ – prematurely born

dišlāk → tišdäṯ → čišdäṯ – bite

düşünsän! → tüšünsän! → čüşünsän! – think!

The d → č process is rare in other Turkic languages. Among modern Turkic languages, it is preserved only in the Uyghur language [Şirəliyev, 2008:83]. Interestingly, it occurs in the same examples mentioned above, e.g., diš → čiš (cf. Azerbaijani diš → tiš → čiš); diši → čiši (cf. Azerbaijani diši → tiši → čiši); düşmāk → čüşmāk (cf. Azerbaijani düşmāk → tüšmäṯ → čüşmäṯ) [Russko-Uyghur Dictionary, 1956:411, 807, 1138]. “But this is only the form of sound combination that we call sound combination,” because in Azerbaijani “a new sound, a phoneme, is not created” [Shireliyev, 2008:83]. Therefore, we can confidently conclude that this is a sound combination for Azerbaijani.

➤ **k → j:** This process is also characteristic of literary Azerbaijani. It occurs in non-initial position and at morpheme boundaries. This palatalization process is positional.

In non-initial position, e.g.:

säksän → säjsän – eighty

säksänmāk → säjsänmäṯ – to wince

äskik → äjsiṯ – missing

tikmāk → dijmäṯ – to build

When a k-rooted word receives a vowel-initial suffix, k in intervocalic position changes to j, k → j, Vk + V > VjV, e.g.:

čöräk → čöräṯ – bread (cf.)

čöräk+i → čöräji – bread (acc.) and čöräk+dä → čöräṯ+dä – in bread (loc.)

üräk → üräṯ – heart (cf.)

üräk+i → üräji – heart (acc.) and üräk+dä → üräṯdä – on the heart (loc.)

➤ **ṯ → j:** Not widespread, occurs in a few words with a palatal vowel nearby, e.g.:

kölṯä → köljöj – shadow

sürṯün → sürjün – exile

jadiṯar → jadiṯar – souvenir

Ni^har → Nijar – Nigar

ä^här → äjār – if

➤ **h → ž**: The ^h consonant differs little from k. The difference is that during ^h articulation, the vocal tract is tense and sonorous. According to N. Gadzhieva, ^h is palatalized before front vowels and changes to ž. Meanwhile, ž → ʒ because ž performs the function of ^h [Gadzhieva, 1978:50], but not in all words.

In the Qazakh dialect, the ^h → ž palatalization process depends on sound combination (^h + palatal vowel and ^h + non-palatal vowel), giving two variants, thus involving sound combination, i.e.:

^hežä → žežä – night

^hül → žül – flower

G^hünel → žünel – sunflower

^hün → žün – day

^hördüm → žördüm – I saw

➤ **g → j**: Recently, the process of g changing into j has become noticeable. This process occurs in the **infinitive** as well as in inflected forms. It occurs in the **auslaut** and at **morpheme boundaries**.

In the initial position, e.g.:

oxumag → oxumaj – to read

jatmag → jatmaj – to sleep

ojnamag → ojnaj – to play

• At morpheme boundaries:

oxumag+ən → oxumajən – to read (genitive case)

jatmag+ən → jatmajən – to sleep (genitive case)

ojnamag+a → ojnaj – to play (genitive case)

According to the norms of literary Azerbaijani, in these examples, final voiced g becomes voiceless x, while in intervocalic morpheme-final position, g changes to ɣ. I believe that in the infinitive with palatal vowels, the -mäk ending in word-final intervocalic position is palatalized and changes to j; while with -mag ending, it should change to x, but changes to j. With back vowels, this process is not permitted; the harmony law between vowels and consonants is violated.

Regarding k, since it changes to č not only with palatal vowels but also with back vowels, the k → č process is attributed to affrication. Consequently, palatalization occurs only due to immediate adjacency, i.e., articulatory, physiological compatibility.

Conclusion. The study showed that in the Qazakh dialect of the Western group of the Azerbaijani language, affrication and palatalization are formally similar but mechanistically different processes.

Affrication should be considered in cases where the transformation of a plosive consonant produces a complex consonant with a spirant component, and the process is not dependent solely on the adjacency of a palatal vowel (k → č, š → č).

Palatalization, on the other hand, represents an articulatorily motivated, positional combination of sounds, developing based on immediate adjacency (d → t → č; ^h → ž; k → j; g → j).

It was established that d → č and ^h → ž do not constitute independent affrication; they are the result of palatalization. Accordingly, terminological distinction is necessary so as not to confuse affrication with positional assimilatory processes.

Furthermore, the Qazakh dialect retains phonetic features that are rare or partially represented in other contemporary Turkic languages. This emphasizes the dialect's independent systemic value and its significance for Turkological research.

Thus, the study shows that affrication and palatalization in the Qazakh dialect are interconnected yet involve different mechanisms, whose clear differentiation is essential for both theoretical phonetics and the dialectology of Turkic languages.

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