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Syllable Theory and Diachronic Phonology: Vocalism and Consonantism in Turkic Languages

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Abstract
Languages that have complex syllable patterns also share linguistic features with each other. These features can be identified through diachronic paths developed by these syllable patterns this study aimed to show the universality of syllabemes in Kazakh and other languages, focusing on questions like evolution of syllables in the Turkic languages; whether a syllable can be called universal in Turkic languages, and whether CV-type syllable be called universal. The study used a qualitative research design to reconstruct linguistic forms in the Turkic languages. This approach is highly valuable for diachronic phonology, which studies existing models of phonological structures and retrospectively determine the proto-language model characteristic of modern languages. This method helps to restore the phonological system of a proto language, by bringing together synchronous slice of one language or different synchronous slices of several related languages. This method is comparative and typological; and focused on both ancient and modern languages including Bulgarian, Chuvsh, Yakut (ancient) and New Turkic languages like Azerbaijani, Gagauz, Uzbek, Turkmen, Kazakh and Tatar. The data revealed the dynamism of the Turkic languages, showing that they constantly changed, developed, and improved. A comparative analysis of closely related languages morpheme was also done to make an etymological reconstruction. The results suggest that highly complex syllable structure is a linguistic type distinct from but sharing some characteristics with other proposed holistic phonological types, including stress-timed and consonantal languages. The study contributes to understanding the syllable theory in diachronic development of syllable patterns and syllable structures.

***Keywords*:** Diachronic Phonology, Turkic Languages, Sound, Syllable, Syngarmonism.

Introduction

A syllable is a natural unit in syllabic languages and a syntagmatic one in European and Turkic languages. On the other hand, a syllabeme is a phonological unit described by means of distinctive features of phonemes, in both

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consonant and vowel terms. A syllable has the strongest cross-linguistic patterns in a CV structure, which involve long sequences of vowels and consonants. If a language has complex syllable patterns, it is necessary to establish whether it shares any linguistic features with other languages or is a distinct linguistic type. It is also important to identify diachronic paths and natural mechanisms by which these syllable patterns develop in the history of a language. Additionally, if a language has a highly complex syllable structure, its phonetic, phonological, and morphological features set it apart from languages that have simpler syllable patterns. Such differences are evident in segmental and suprasegmental properties, with a higher prevalence of vowel reduction and higher average morpheme/word ratios (Walker, 2011). However, it is also important to understand that socio-political and economic transformations in a geographical area affects the linguistic life of all ethnic groups residing in that territory.

Trubetzkoy (1928) defines the concept of a linguistic area as a group of lects or language clusters sharing morphosyntactic, phonological, and lexical features but no regular phonetic or morphological elements nor any similarity of grammar and vocabulary. Such a linguistic area comprising a group of lects also share a common ancestor; for example, Bulgarian belongs to the Slavic family or the Balkan linguistic area along with Greek, Albanian, and Romanian languages. Other studies (Thomason, 2000) argue that a linguistic area is developed through a relationship between lects rather than by making a group of lects. In such a situation, two lects spoken very far away from each other may come into contact and develop similarity. For example, Malay has developed a lot of lexical and phonological similarity to Arabic (namely the adaptation of Arabic xenophones, such as /f/ or /x/), even though these two lects are spoken in distant regions. This similarity may be attributed to the religious influence of Islam in the Malay Peninsula.

The geographical area of Eurasia comprises regions of Caucasus, Europe, Mainland Southeast Asia, Northeast Asia, Qinghai-Gansu, and South Asia. All these areas have geographical vicinity, and therefore can be viewed as linguistic areas as well; though it is difficult to tell how many linguistic areas exist in Eurasia. One reason is that some of the proposed linguistic areas are disputed, such as the Caucasian linguistic area. Moreover, these linguistic areas are multi-layered, where a small linguistic area like the Balkan linguistic area is nested within the larger European linguistic area. Moreover, the number of linguistic areas in Eurasia also depends on what linguistic theories to accept, since English is already becoming a world`s dominant language (Chen et al., 2009; Suntornsawet, 2019), and it has penetrated into fields of business and advancing technology.

There is a dearth of studies on the evolution of syllables in Turkic languages. The current studies have very limited knowledge about syllabemes as phonological units of Proto-Slavic language. Not much is known about their features. This research is focused on the development of syllabic composition in the Turkic languages. It analyzes many language data, indicating the composition of a CV-type syllable as a universal and proto-language repercussion. While this study aimed to show the universality of the syllabeme through the materials of the Kazakh language and other languages, specifically, it examined the following research questions: (1) How did the syllable evolve in the Turkic languages? (2) What composition of a syllable that can be considered universal in the Turkic languages? (3) Can CV-type syllable be considered universal?

Literature Review

Syllable and Its Types

A syllable is a minimal phonetic-phonological unit characterized by the greatest acoustic-articulatory unity of its components, that is, the sounds. The syllable has no connection with the formation and expression of semantic relations; however, it is a phonological unit that helps in the study of the patterns of sounds and signs in language. A syllable typically comprises a vowel and at least one consonant in various combinations. There are two main types of syllables in the Altaic languages, including the Turkic ones: 1) open (consonant-vowel), 2) closed syllable (consonant-vowel-consonant) (Tomanov, 1981). Scientists have different approaches to what type of syllable is the first. According to Pisciotta et al. (2010), among the same-root words, the most ancient is the closed type of syllable, and everything else is its modification. The second group of scientists adheres to the point of view that the type of consonant-vowel syllable was the first. In general, there are several scientists who have considered the question of generation in various forms in the Altaic and Turkic languages.

In the Kazakh language, several linguists have contributed to understanding the syllable patterns (Mussayev, 2008). For example, Kaidarov (2000) determined the composition of syllables using morphemic analysis; Khusainov et al. (2001) studied the types of syllables of imitative words; Eskeeva (2007) analyzed the changes of sounds at the end of monosyllables; Sagyndykuly (2009) studied the character of arch syllables; Zhunusbek (2009) determined the role of synharmonism in the Kazakh syllable; and Mankeeva (2010) studied the composition of verbs. In recent years, the experimental works of B. Khassenov (Khassenov, 2021; Khassenov et al., 2021; Khassenov et al., 2020) raised the problem of a universal word, a sound found in the babbles of Kazakh children. The structuralist linguist Charles F. Hockett referred to the syllable as a "structural unit", having its in phonetic and pulmonic pulses of the chest (Hockett, 2019). For this reason, a syllable is sometimes referred to as the 'beats' of spoken language (Hayes, 2009).

Eurasian Regions

The major Eurasian linguistic areas comprise Caucasus, Europe, Mainland Southeast Asia, Northeast Asia, Qinghai-Gansu and South Asia. It is difficult to scale the number of linguistic areas in Eurasia owing to linguistic diversity, and due to the presence of multi-layered organization where small linguistic areas are nested in larger ones

(Chen et al., 2009; Suntornsawet, 2019).

The first regions, Caucus is one of the most linguistically diverse regions in the world (Comrie, 2009). It is divided into three language families namely, South Caucasian, Northwest Caucasian, and Northeast Caucasian. The population also comprises speakers of some Turkic and Indo-European lects, such as Azerbaijani and Armenian. Owing to its diversity, it is difficult to find any homogeneity in this linguistic area. The second region, the region of Europe, is the westernmost region of the Eurasian continent, geographically separated by the Ural Mountains, the Caspian Sea, and the Black Sea. Linguistically, it is dominated by various branches of the Indo-European family (Germanic, Italic, Balto-Slavic, Celtic, Hellenic, and Albanian), along with a number of Uralic dialects like the Afro-Asiatic Maltese, and the isolate Basque (Haspelmath, 2008, 2020; Whorf, 1944).

The Mainland Southeast Asia comprises the Indochinese peninsula and Southwestern China where Sino-Tibetan, Austroasiatic, Austronesian, Tai-Kadai, and Hmong-Mien lects are spoken (Enfield, 2023; Sidwell et al., 2021; Vittrant et al., 2019). There are features that distinguishes this region from others like highly complex tones, monosyllabic or sesquisyllabic lexicon, analytic morphology, and SVO word order (Comrie, 2008; Haspelmath, 2018, 2020), some of which are common patterns, which make this region a coherent linguistic area (Sidwell et al., 2021). The Northeast Asia region comprises northeast China, Mongolia, Siberia, Russian Far East, Korea, and Japan. Its linguistic features are much debated because of its heterogeneity and lack of consensus among the experts (Hölzl, 2018).

The Qinghai-Gansu linguistic area witnesses the Bodic, Turkic, Sinitic, and Mongolic languages of the western China (Dwyer, 2013). This region is far smaller than other areas but it displays a distinct mixture of linguistic features of the Northeast Asia or Mainland Southeast Asia regions, hence displaying a lot of homogeneity in the form of features like verb-final word order, case marking, and CV(N) syllable structure (Liu et al., 2017). Finally, the South Asia linguistic area mainly comprises the Indian subcontinent, dominated by Indo-Aryan (branch of Indo-European) lects in the north and Dravidian lects in the south, while also home to many Sino-Tibetan and Mundaic (branch of Austroasiatic) minority lects and the lect isolates Nihali and Burushaski.

Correlation Between Sounds and Syllables

The sounds of a language reveal its individuality, uniqueness, and originality (Stekolshchikova I. V., 2022). It has been proven in the research works of scientists from different angles that syllables are formed from sounds Wing et al. (2021); Charlie et al. (2020); Dombrovan et al. (2021); Abdukahharovna (2021). They are distinct as a significant structure in the languages of the world and manifest themselves both externally and internally in relation to the language system (Ali Abdul Hussein).

The first achievements of instrumental phonetics of the late 19th century contributed to the emergence of phonology, the concept of a phoneme appeared as an independent unit in various acoustic realizations. The content of the phoneme was determined by its place, role, attitude with other elements of the phonological system. If the historical phonetics of the nineteenth century was limited to illustrating the alterations in individual sounds like spirantization, delabilization, rhotacism, lambdacism. Diachronic phonology, which has replaced historical phonetics, considers changes in sounds in the relationship, in the system of other sounds, and the main goal is to reveal the causal mechanism of the dynamics of phonological systems. Alterations in the phonological system are considered as a set of interconnected elements.

One of the constitutors of diachronic phonology evolved a general formula for sound variations based on the theory of opposition. In this formula, the phonological opposition of the previous state of the language and the subsequent ones are indicated; the processes of phonologization and dephonologization are depicted. The fundamental formulas developed by these scientists are universal in nature, generalizing the factual material of related and unrelated languages. It should be noted that Jacobson's theory of universal opposition is now also used in child speech (Khassenov, 2021; Khassenov et al., 2021; Khassenov et al., 2020; Lahrouchi et al., 2018; Morgan et al., 2018; Sidhu et al., 2019).

A well-known French linguist Martinet (2020) described a systematic analysis of phonetic changes. In his work the scientist writes that the fate of an individual element depends not only on its neighboring units in the speech flow, but equally on other elements existing with it in the given system, i.e., Martinet brings to the fore the paradigmatic correlation system with series and rows. The combination of phonemes in series and rows provides for the expansion of correlation by filling in "empty cells" and the symmetry of the system. This implements the principle of economy by saving differential features and the nature of articulation. It can describe one aspect of the uniqueness of a language (Hadi et al., 2023).

Methodology

Research Design

The study adopted a qualitative method of reconstructing linguistic forms which is usually not attested in any written documents; hence it has a general methodological significance. This approach is highly valuable for diachronic phonology, which studies existing models of phonological structures and retrospectively determine the proto-language model characteristic of modern languages. This method helps to restore the phonological system of a proto language, by bringing together synchronous slice of one language or different synchronous slices of several related languages.

This method is comparative, areal, and typological; therefore, the solution of phonological issues ought to be based on the results of phonetic problems. In other words, phonological alterations are preceded by phonetic variations.

Data Collection

The data for the study was mainly derived from the Turkic language, which is dynamic, constantly changing, developing, and improving; hence it has undergone a variety of phonetic changes. A majority of indigenous words in Turkic come from the same root common to other languages in vicinity (Cagyndykuly, 2020). In diachronic phonology, an analysis method based on synchronous slices is often used as a study by comparing individual facts of closely related languages, as presented in Table 1.

Table 1: Four Groups of Turkic Languages.

1	**Most ancient Turkic languages**	**Bulgarian, the language of yellow Uyghurs, Chuvsh, Yakut**
2	Ancient Turkic languages	The language of the Orkhon-Yenisei monuments, Old Uigur language, Khakass language, Shor and Tuvan languages
3	New Turkic languages	Azerbaijani, Gagauz, Uzbek, Turkmen, etc.
4	Newest Turkic languages	Kazakh, Karakalpak, Nogai, Kumyk, Tatar, Bashkir, Kyrgyz, Altai, etc.

In this classification, each group of languages represents one synchronous slice. For instance, if the facts of the new Turkish languages are counted as one slice, the Proto-Turkish language of the era of its decay can be reconstructed by comparing the facts presented by the languages of a more distant relationship, and by branching the family tree.

Data Analysis

The method of morpheme analysis was also used in the work. Using this method, Kaidarov (2000) determined the type of syllable in the Turkic language and made an etymological reconstruction. In modern Kazakh linguistics, it is considered one of the most productive methods (Khassenov et al., 2021).

Results

This study reiterated the fact that all languages have certain connections between the elements of phonological system. A separate phoneme does not exist except in a connection that leads to a general holistic system. Two phonemes can be combined with each other in a certain opposition through differential signs. Their acoustic-articulating properties are indicated by differential signs of phonemes, which are perceived by speakers and distinguish phonemes from each other, and also contribute to the recognition of words and morphemes. Thus, in the Kazakh language, there are vowels of the back and front row (hard-soft) such as: **<а>**:**<ә>**, **<о>**:**<ө>**, **<ұ>**:**<ү>**, **<ы>**:**<і>**, which are differential signs of these phonemes. Just as in the French phonemes **<a>** and **<o>**, the lack of nasalization is a differential feature, since in French there are nasalized **<ã>** and**<õ>**.

In the Kyrgyz language, brevity and longitude are differential features of different phonemes, just as in Russian, the hardness and softness of consonants are differential features of phonemes. A comparison of phonemes in oppositions is made based on the phonetic features of those sound types by which phonemes are realized. The phonemes that make up the opposition have common features, namely phonemes' synonymy. These features form the fundamentals of the opposition, and these are also the features of the phonemes' antonymy which form the opposition. Therefore, in opposition, **<b>**: **<p>** in the Kazakh language there are common features: 1) *bilabial* (erin-erindi), 2) *occlusive* (toǵysyńqy), and various features are: **<б>** – *voiced* (uiań), **<п>** – *voiceless* (qatań). In addition, there are examples like vowels **<а>**: **<ы>**, whose general features are: 1) backlingual (til arty), 2) non-labial (ezý), and various features are: <а> – *open* (ashyq), <ы> – *closed* (qysań). In French, however, the vowels [ɛ]: [e] in the words près and *prés* are opposed to each other in *openness-closeness* (ouvertes-fermées). The opposition from the point of "*voicedness*" and "*openness*" by means of a sequence of steps reaches the point of "*voicelessness*" and "*closeness*". Here we have a gradual opposition based on different degrees of the same feature.

The same opposition exactly can form phonemes as *voiced* or *voiceless*. In the Kazakh language the opposition *uiań-qatań* (voiced-voiceless) is represented by the following pairs of phonemes: **<д>** and **<т>**, **<з>** and **<с>**, **<ж>** and **<ш>**, **<ғ>** and **<қ>**; however, in French the same opposition — sonores-sourdes is represented by the following pairs of phonemes: **<b>**and**<p>**, **<v>**and**<f>**, **<d>**and**<t>**, **<g>**and**<k>**, **<z>**and**<s>** in the Kazakh language by *openness-*"*closeness*" (ashyq-qysań) **<о>**and**<ұ>**, **<ә>**and**<і>**. In French vowels, [ə] and [o] are represented in the words *dot* and *dos*; [œ] and [ø] are in the words *peuple* and *peu*. The whole set of phonemes is united by one distinctive feature: *voiced-voiceless* (uiań-qatań, sonores-sourdes) for consonants and *open-closed* (ashyq-qysań, ouvertes-fermées) for vowels. These phonemes constitute *privative oppositions* with each other. A member of the opposition that is characterized by the presence of a feature is "marked", and a member of the opposition that does not have a trait is "unmarked".

This finding reveals that members of the opposition can be counterposed on several distinctive features, for example, the vowel phonemes **<а>** and **<I>** are contrasted on two features: **<а>** – *open, backlingual* (ashyq, til arty), **<і>** –*closed, forelingual* (qysań, tilaldy), general features: non-labial, *monophthong* (ezy, jalań) as many as different. The next pair **<ә>** and **<ү>** also have two distinctive features: *open / closed, non-labial / labial* (ashyq / kysań, ezy / erin) and two

common: forelingual, *monophthong* (til aldy, jalań). Consonant phonemes **<з>** and **<р>** have two distinctive features (*uiań - voiced/ úndi - sonorous*, jyinaqy - compact / diril - *oscillation*) and two general oppositions (tilyshy, juysyngky). The next pair of consonant phonemes **<с>** and **<l>** also has two distinctive features (qatań / *úndi*, jyinaqy / janama) and two common ones (til yshy, juysyńqy).

In French vowels such as **<u>** and **<i>** in the word's *sous* and *si* have two distinctive features: labial-non-labial (labiales, nonlabiales) front-back (antérieures, postérieures) and two common – *closed* and *non-nasal* (oral) (fermées, orales). The general and distinctive features in these examples are approximately in equilibrium, forming *equipolent* (equivalent) oppositions, that is, both members are logically equal and are neither two levels of any attribute, nor confirmation or denial of the attribute. If phonemes in one opposition are related to each other in the same way as the other ones in another opposition, then both oppositions form a correlation. In correlation, not phonemes, but elementary oppositions of phonemes have immediate similarities likened to proportions in mathematics. Universal correlation on voiced and voiceless occur in all languages, as demonstrated in the Table 2.

Table 2*: Correlation Features.*

In the Kazakh language	In French
<б> – <п>	**<b> – <p>, <v> – <f>**
<д> – <т>	**<d >– <t>**
<ғ> – <қ>	**<g> –<q>**
<г> – <к>	**<g> –<k>**
<ж> – <ш>	**<zh> –<sh>**
<з> – <с>	**<z> – <s>**

In another example, a highly disputable soft sound like 'g' in Turkish phonetics and phonology, can be viewed from a multidimensional perspective: (i) First, by analysing its historical development; (ii) second, by investigating its distribution in a dictionary of Modern Turkish, and (iii) third, by studying its acoustic realization. In the Ottoman script, soft 'g' was represented with two letters: <'Greek passage'>, pronounced [ɣ], was used in the context of preceding back vowels Vback (Vback, C); <'Greek passage'>, pronounced [j], was used in the context of preceding front vowels Vfront (Vfront, C). In 1928, due to a reform in orthography, these two vocalic contexts were obscured by replacing both <'Greek passage'> and <'Greek passage'> with <'Greek passage'>.

The current investigation of the distribution of /ğ/ in the native vocabulary of Modern Turkish reveals that /ğ/ is in complementary distribution with /g/: /ğ/ appears word-finally and word-medially (i.e. syllable-finally Vğ.C and intervocalically V.ğV), while /g/ is found word-initially and word-medially (i.e. syllable-initially when following a consonant C.ğV). However, in loan words which are well assimilated into Turkish by means of phono-morphological rules the complementary distribution is not attested. Moreover, the behavior of soft 'g' in phonological processes strongly suggests that the sound is part of the phonemic inventory of Turkish. Finally, the results of the two acoustic experiments in this study show that /ğ/ is phonetically manifested in the lengthening of the preceding vowel (/Vğ/ → [V:]) independently of the surrounding vowel environment, word position, and participant age. In addition, the results indicate that speakers of Modern Turkish do not realize acoustic properties of a velar gesture" (Ünal-Logacev et al., 2019).

Diachronic phonology can freely utilize the data of any, even genetically distinct languages, using typological facts and universals. As a result of studying the structure of the Turkish and Indo-European word, scientists concluded that the ancient system of these languages coincided with the type of root-isolating languages characterized by the monovocal character of the word structure. At the same time, the differential signs of recovery, palatalization and labialization were realized in different tones, characteristic of some contemporary languages of Southeast Asia. In several Asian and African syllabic languages, the syllabeme being an analogue of the phoneme is represented as the only phonological unit. Vowels and consonants in a syllable are mutually predictable and they are united by a uniform timbre. When the syllable is monolithic, the syllable can be considered the only segment of phonological unit, and it should also provide diffusivity, i.e., interpenetration of vowels and consonants, their maximum interdependence. If in European languages a syllable is a syntagmatic unit, then in syllabic — it is a paradigmatic one. A syntagmatic relation consists of two or more members of the relation, which are equally present in the real sequence. They have linear relations (Malikova, 2023).

The first phonological analysis of the ancient Slavic languages made it possible to put forward a hypothesis of syllable syngarmonism in the Proto-Slavic language. The idea of syngarmonism as a convergence of the timbre of adjacent sounds dates back to the era of syllable. The positions put forward by Russian linguists have something in common with the theory of syngarmonism, developed based on Turkish languages. The phenomenon of syngarmonism, characteristic of the Turkish languages and for a certain period of development of the Slavic languages, has a typological character. Apparently, this is a transitional stage through which all developing languages go.

The famous Slavist (Zhuravlev, 2007) at one time put forward the theory of groupophones as a result of studying the phonological system of the Pre-Slavic language. According to this theory, a group phoneme (syllable) consists of a single-tone consonant and the next syllable vowel and makes up one single-tone syllable, which is an indecomposable unit of the phoneme level. The phenomenon of group syngarmonism, i.e., the rapprochement of the timbre of adjacent sounds occurs at the junction of the systems of vocalism and consonantism, which makes it possible to consider the

whole phonological system without dividing it into a system of vocalism and consonantism. According to Zhuravlev (2007), in the process of forming group syngarmonism of the Proto-Slavic language, it is advisable to distinguish between the early and late stages of development. At the first stage, syngarmonizing groups C + V (consonant + vowel) were formed, united by the unity of timbre (high or low tonality), which from the phonological point of view can be interpreted as integral indecomposable phonological units, group phonemes. They were opposed to each other by a system of differential features: sharpness-non-sharpness (*diesis* — from Greek origin), longitude-shortness, and openness-closeness. The essence of the phonological process of formation of groupophonemes can be expressed by the following formula:

C + °V----------C° + V----------°CV
C + 'V----------C' + V----------'CV

By the beginning of the second stage of the development of Pre-Slavic language, the word structure was a combination of groupophonemes and phonemes:

$C_1 + C_2 + CV_1 + C_3 + \ldots\ldots\ldots\ldots + CV_n + C_n$
$Ph_1 + Ph_2 + GPh_1 + P_3 + \ldots\ldots\ldots\ldots + GPh_n + Ph_n$

The phonological process of the second stage leads to the elimination of the phoneme by including them in groupophonemes or complete reduction. Before the final consonants disappeared, most of the pre-Slavic word forms ended in a consonant. The word ended with a consonant s, less often — t, even less often — d. In the epoch of the formation of syllable, final C could not form the corresponding groupophoneme due to the fact that the groupophoneme structure consisted of elements C + V. These final consonants turned out to be outside the groupophonemes: *sunus* → su + nu + (s); *reket* → re + ke + (t); mater → ma + te + (r).

Analyzing the data of the word form, Zhuravlev (2007) comes to the conclusion that the structural heterogeneity of the phonological system and consisting of heterogeneous phonological units (group phonemic and phoneme), can be overcome in two ways: by eliminating the phoneme or groupophonemes, while the development of the phraseological system of the Proto-Slavic language went the first way — the loss of phonological independence of individual phonemes, as evidenced by the process of consistent loss of final consonants in the Proto-Slavic language. As a result of the loss of final consonants, which have a significant phonological load in the inflectional language, indicates an intensification of the formation of groupophonemes. Zhuravlev (2007) calls this process "generalization" of groupophones. Further, the development of the phonological system of the Proto-Slavic language led to the collapse of groupophonemes, which was associated with the monophthongization of diphthongs.

The theory of groupophonemes of Zhuravlev (2007) responds some questions of diachronic phonology not only in Slavic and Turkic languages, but also in Southeast Asia. The syllable began to form in the early period of the development of the Pre-Slavic language. As a result of the prolonged development of phonetic systems, groupophonemes disintegrated into separate phonemes. The hypothesis of syllabic syngarmonism in the Pre-Slavic language was put forward by de Courtenay (1963) and Avanesov et al. (2009).

The syllable (groupophoneme), which is a phonological unit, can be described by means of differential signs. Moreover, the differential attribute applied to the entire segment, both its consonant and vocal parts. Take for example, sharpness characterizes all elements of a groupophoneme: (C '+ C' + 'V). Thus, as a result of the development and establishment of the phonological system of the Pre-Slavic language, there was a tendency for the final consonants to fall out. The completion of this process strengthened the groupophoneme system as the main phonological unit, and these changes in the structure of the word led to open finite syllables. That is why in the Russian language there is a close connection between the vowel and the initial consonant, while the final consonant is characterized by a weak adjunction to the previous vowel.

Experiments in speech production based on Russian language material (Kasevich, 1983) that show the dividing speech chain which leads to a sequence of open syllables, while experiments on material from the Vietnamese language leads to a sequence of closed syllables. If the Russian language is more characteristic of the border dividing the syllable CVC into segments CV and C, then for the Vietnamese language the separation of the final consonant is almost completely excluded, moreover its transformation into a special syllable — the only border essentially divides the Vietnamese syllable CVC into segments C and VC. The syllable of a syllable language exhibits higher stability than the syllable of a non-syllable, which is in good agreement with its role as a special unit — a member of an independent paradigmatic system. In those cases, when the external interference nevertheless leads to the decay of the syllable the "seam" along which such decay occurs that fully corresponds to the boundary between initial and final, established based on considerations of the functional order. In syllable languages, the differential attributes of the phoneme belong to the entire syllable. Syllabic phonology is closely related to the problem of monovocalism.

We consider it appropriate to cite Zhuravlev (2007) statement about the Eurasian phonological union: "The phenomenon of convergence of the timbre of adjacent sounds (group syngarmonism) as a consequence of this phenomenon characterizes a significant number of languages that are part of the so-called Eurasian phonological union, uniting part of the Slavic, part of the Baltic, part German and Romance, part of the Finnish and Turkic languages, the Japanese language, but does not characterize any language family as a whole. It is arduous to name the epicenter of this phenomenon in both geographical and linguistic aspects. It is difficult to decide where this phenomenon is inherited from a previous state, and where it appeared as a result of interference. The problem of the

genesis of this phenomenon has not yet been solved for any language family. As for the Pre-Slavic language, its belonging to this isoglossic area can certainly be recognized at least for the relatively early stages of its development (Ibrayeva et al., 2021). From a methodological point of view, it is advisable to show the possibility of spontaneous development of syngarmonism in one of the groups of languages, for example, on Slavic soil, without in any way denying the possibility of interference".

Shevoroshkin (2004), examines the typological regularities of the structure of texts, concludes that the Indo-European state of languages was preceded by an era in which the ancestor language of the common Indo-European and other "Nostratic" languages was characterized by lower saturation of sound chains and, accordingly, more limited possibilities of a combination of consonants. The language that preceded the Indo-European was clearly not a CVCVCV language: the fact is that the structure of the sound chains is relatively complex compared to other languages, and it characterizes the languages of those families that are part of the Siberian-European Prasamys of languages: Indo-European, Chukchi-Kamchatka, Eskimo-Aleutian, Kartvelian, Uralic, Altai, Semitic and Hamitic. A tendency to the formation of open syllables is revealed. As a result of the long development of phonological system. The structure of the CV segments is the most convenient for pronunciation, which is evidenced by the study of the language of children with their initial words such as CVCV. The researchers of the Kazakh children's language of (Khassenov et al., 2020) recognize the universal link of the CVCV type. They noted that children often would pronounce open-type syllables, such as mama [məmə], baba [bəbə], tata [tətə], dada [dədə], nana [nənə].

Studies have examined disyllabic babble in the child's language (De Clerck et al., 2017), the role of biomechanical restrictions in initial words (Lahrouchi et al., 2018), babble of infants raised in bilingual environments (Andruski et al., 2014), the course of transition of children with hearing disorders to speech (Moreno-Torres, 2014), the presence of children with speech disorders substrate, effect (Marschik et al., 2014), and all these changes indicate that the open syllable is a universal phenomenon. The same technique is used as a research instrument to analyse the student's results on the English phonemic awareness (Alhumsi et al., 2018). The research reveals that non-native English learners got similar results as the native English students. In the cultivation of languages of various types occurs monophthongization of diphthongs. In Romance languages, diphthongs monophthongized by developing under the influence of substrate languages with closed syllables. Since closed syllables occupy a subordinate position in languages with predominantly open syllables, the joints of syllables of the CVC-CV type are treated here generally in the same way as the joints of syllables of the CV-CCV type, i.e., there is a union of consonant groups into very close phonetic complexes.

On the basis of phonologization phenomena that are typical for all languages, even languages that are not solely dependent from English (Philippine languages) the phonetic system of the Kazakh language was expanded, the function of sounds was expanded, raised to the phonemic status and studied from the point of view of diachronic phonology (Berowa et al., 2020). The sound system of the Kazakh language (vocalism and consonantism) in accordance with the process of its development because of convergent-divergent patterns, of their allophones' transfer to individual phonemes were studied by comparative-historical and comparative-typological methods.

Sound changes in the Kazakh and Turkic languages were considered in connection with the agglutinative construction of the language, the law of harmony, divergence, and convergence of sounds, phonologization, and other sound phenomena. Based on comparative historical and typological methods, the degree of similarity and differences of phonological systems, common and distinctive features are described. Kazakh sounds were considered in the functional aspect.

The basic principles, concepts, methods, and techniques of phonology are also used in other areas of linguistics. Considering the smallest functional unit of phonology, the phoneme's presence in the morpheme and word and their meaning-changing properties, it is related to morphology, lexicology, and semantics. Therefore, based on the regularities and factors of phonology, one can deal with current problems of linguistics. There is no doubt that comparative phonology has an impact on the development of comparative lexicology and grammar in linguistics, and when studying the phonology of Turkic languages in a diachronic aspect, one can proceed to the historical etymology of the Kazakh language (Mussayev, 2008). There are also many argued issues which have not been reviewed or studied yet.

Discussion

There are two perspectives for the development of the syllabic composition of Turkic languages, as mentioned in the beginning of this study. According to the Turkologist Baskakov (1988) in the preceding modern Turkic agglutinative languages, an isolating system characterized by the monovocal character of the word structure, the differential signs of uplift, palatalization and labialization were realized in different tones typical of some modern languages of Southeast Asia.

Baskakov (1988), on the basis of phonetic laws laid down in the structure of modern Turkish languages, established three main types of phonological structure of Turkish languages, historically preceding modern Turkish languages. The first type is monovocal, characteristic of the most ancient state of Turkic languages, when they had an isolating system and retained the three-sound basis of the root morpheme, consisting of one morpheme — one vowel and two consonant elements — CVC, in which the vowel element performed only one function — syllabic; meaningful functions carried consonants, the composition of which was limited and each of the consonants had eight modifications,

determined by the differential signs of timbre (rise), labialization and palatalization. The second type is the later one, characterized by further processes of morphological development, grammaticalization of the determined root morphemes in complex combinations with their phonetic reduction and fusion, i.e., the formation of complex words. Vocalism of this type consisted of two main vowel phonemes, differing in timbre (rise); other differential signs — labialization and palatalization — according to the laws of syngarmonism apply to the whole word. The third type of phonological structure of the Turkish languages, characterized by the presence of already eight vowel phonemes and more developed consonantism, is realized, with various deviations and innovations caused by both the immanent, internal development of the Turkish languages, and the influence of the corresponding abstract and substrate factors in modern Turkish languages in the form various, but having the same basis, phonological models: Oguz, Karluk, Kipchak, etc. with corresponding modifications.

The Altaic linguist, Kotwicz (1962) believed that the ancient Turkic root consisted of open syllables. Comparing the Turkic, Mongolian, Tungus-Manchu language data, he determined that the first syllable was of the consonant-vowel type, and drew the Turkic-Mongolian parallels, recognizing the Mongolian version as the first. He believed that the Turkic *køk* was historically 'younger' than the Mongolian *køke*. This opinion was repeated by Dmitrev (2020). A similar opinion is found in the work of Mankeeva et al. (2010). In the contemporary Turkish languages, as it is known, syngarmonism is considered as one of the main laws of phonology. Conducting the phenomenon of syngarmonism in the Kazakh language, Zhunisbekov (2020) writes that the leading phonological function of syngarmonism is to maintain a uniform timbre in the whole appearance of the Turkish word, i.e., all vowels and consonants in a syllable are united by one timbre. Moreover, the smallest functional phonological unit is not a phoneme, but a syngem realized in a syllable. As you can see, this point of view echoes the theory of syllable.

Conclusion

The study proves the doctrine of the group phoneme, syllabeme; it is closely related to the theory of syngarmonism. According to the results of typological studies on the material of genetically unrelated languages, phonological processes are found to be universal. The processes of integration and differentiation of functional units are implemented according to the differential criteria of sharpness, non-sharpness, flatness, non-flatness, openness, closeness. The development and establishment of models of the phonological structure of ancient and modern languages of various types on the territory of the Eurasian space in retrospect are traced by using the methods and techniques of diachronic phonology.

Thus, the above data gives a reason to judge about the evolution of a universal syllable in the Turkic languages. If we pay attention to the research on the Turkic languages, different opinions were expressed as to which type of syllable (consonants-vowels and consonants-vowels-consonants) is primary. The study has disclosed and solved the problem of the main type of syllable by means of factual data not only of Turkic, but also of other languages. An additional argumentation of this theory is provided by the presentation of the facts of the study of children's speech. In summary, the research proves the theory that the consonant-vowel syllable is universal, which confirms its use in such a context in previous works on the Turkic languages.

Turkic monosyllabic roots and bases in diachronic terms are quite elastic, flexible by nature linguistic elements. Hence, one of the problems in general linguistics that has not been fully resolved from time immemorial is the link. In addition to its function in the language, there is still no consensus when it comes to describing the phonetic nature, determining the composition of the sound and marking the sound. In general phonetics, the question of syllables is analyzed from different angles. One of them is joint components. By "syllable components" we mean the sounds that are involved in the formation of syllables in the language. Because in order to pronounce a syllable in any language, you must first know the units (or sounds) that make up a syllable in that language. Therefore, to conclude, it turns out that the sounds in a language are classified into two groups in relation to the syllable: the first is directly involved in the formation of the syllable, or syllable components, the second cannot directly participate in the formation of the syllable, or non-syllable components. Based on this opinion, it is also possible to form their Kazakh names: syllable-forming phonemes and non-syllable-forming phonemes.

The study draws the following conclusions about the problem of the syllable cleft: when looking for a syllable cleft, one should rely on the fact that consonants are pronounced at different rates. Its first type is bass consonants, which are consonants that begin intensively and weaken towards the end, such consonants stand at the end of the syllable. The second type is foot – intensive consonants, which are consonants that begin weakly and become stronger towards the end and end intensively, such consonants stand at the beginning of the syllable. The third type is double – intensity consonants, which begin intensely and then weaken and end intensely again towards the end. Double-intensity (sometimes called geminates) consonants are located only on the inter-vowel line, and the syllable joint passes through the weakest point between them.

A syllable is not a simple combination of a vowel and a consonant, but a pronouncing unit. This means that when articulating a syllable, each person does not pronounce separately the sounds that make up this syllable (vowel and consonant) but combines them in a certain way. This pronouncing community of sounds, their especially close connection with each other, is reflected in their acoustic characteristics: after all, if the sounds are interconnected, then the articulation of each of them affects the articulation of the neighboring one, and this leads to changes in sound. The

regularities and phenomena, the overall concept of the Kazakh phonology was defined by comparative and typological research. In phonology, not only data from related languages but also non-related languages are taken and based on the typological features and universality of each language, the phenomena of reduction, short and long pronunciation of sounds, monophthongization and diphthongization, labialization and derabialization, aspiration are described.

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