

## Remarks of the problem of substratum and Finno-Ugric - Turkic linguistic interaction

### I

There can be little doubt as to the fact of mutual interaction between the Turkic and the Finno-Ugric languages in the Volga region, and the problem amounts to establishing the degree of their interaction and of concrete facts providing this. Opinions are manifold and fluctuate between the assumption of an infinitesimal degree on interaction and the presumption of an exceedingly high degree influence, namely the descent of all Volga-Turkic languages and/or peoples from Finno-Ugric.

In the present article, I shall discuss some views which characterize the state of investigations in this field and in which the problems of interaction between the Finno-Ugric and the Volga-Turkic, i.e., Chuvash, Mishar-Tatar, Bashkir languages and dialects are considered.<sup>1</sup>

### II

The history of the problem is briefly described in N. N. Poppe's article *Čuvašskij jazyk i jęgo otnošenie k mongol'skim i tjurkskim jazykam*.<sup>2</sup>

J. C. Adelung regarded Chuvash as a special branch of Mongol-Tatar. R. C. Rask (1834) and W. Schott (1841, 1843) proved that Chuvash belongs to the Turkic group.

However, V. Grønbeck, P. Melioranskij (1904), A. Ahlqvist, J. Budenz, G. Levesque, M. A. Castrén considered Chuvash to be of Finnic origin; Fraen counted the Volga Bulgars among the Finnic peoples, and W. Radloff thought that Chuvash was the result of a transfer of a Turkic dialect onto a non-Turkic basis. N. I. Ašmarin, at first, was inclined to adhere to the idea

of a non-Turkic origin of the Chuvash (1898) but afterwards changed his views and assumed that the Chuvash were Turks and the Finnic elements had penetrated into the language as a result of their assimilation of some Volga-Finnic tribe (1903).<sup>3</sup>

According to N. Poppe's well substantiated view, Chuvash descends not from the Turkic parent language but from a Pre-Turkic language common to Turkic, on the one hand, and Chuvash, on the other, which is undoubtedly the only correct conclusion, considering that Chuvash occupies an intermediate position between the Turkic and Mongolian languages, which was also shown by N. Poppe in his later works.<sup>4</sup>

### III

As long ago as the 19th century Orthodox Russian missionaries used the idea of a Finno-Ugric substratum in the Volga-Turkic languages on a wide scale in order to impart the idea that the Volga-Turks were, in reality, turkicized Finno-Ugric tribes.<sup>5</sup>

Thus, after the Tatar scholar Khusain Feizkhanov had discovered, in 1863, the meaning of the Bulgar words conventionally written *ĵiati ĵur* 'seven hundred', identifying them with the Tatar words *ĵida ĵoz*, id., N. I. Il'minskij wrote in 1865: "If we assume the relationship of Chuvash to the Turkic language to be the same as between the Romance languages and Latin, that is to say that Chuvash, formerly quite a different language, namely, Finnic, later essentially changed under the influence of the Turkic language, then the above mentioned monuments of the 8th century of the Hegira can indicate an epoch of complete revolution, a rather late period when Islam reigned among Tatars. A few Arabic and Persian words in the Chuvash language indicate this".<sup>6</sup>

The notion "the Turkic language" is not explained although it is used in an unusual sense for the author writes that the Bulgar words in the monuments represent "something intermediate between the Turkic and the modern Chuvash" (op. cit., p. 84) although Chuvash is a Turkic language and Il'minskij does not deny this, at least, as far as modern Chuvash is concerned.

The hypothesis about the Finno-Ugric origin of the Chuvash is supported by the Chuvash Professor V. G. Egorov, Cheboksary, who writes: "It

is possible to presume that the ancient forefathers of the Chuvash represented, at a remote period in time, a rather small group separated from Finno-Ugric tribes" and that "after the interbreeding of the ancestors of the Chuvash with the Turks, the Chuvash language acquired the Turkic grammatical structure and the Turkic vocabulary and started developing according to the internal laws of the Turkic languages. As to the Pre-Turkic vocabulary and grammatical forms, they gradually disappeared, and of them only insignificant remnants, individual lexical and grammatical elements have been preserved."<sup>7</sup>

Later, Egorov admits the insignificance of the non-Turkic elements in Chuvash and calls these elements "Pre-Turkic poor remnants". However, it is still necessary to prove that these elements are really remnants and not later borrowings from neighbouring Finno-Ugric languages. As examples of these Pre-Turkic remnants, Egorov gives, beside some toponyms, only a few words which have etymologies in some Finno-Ugric languages but never mentions in the case of a single word the absence of the corresponding words in other Finno-Ugric languages and, conversely, ignores the existence of analogous words in other Turkic languages.

Thus, e.g., Chuvash *karta* 'enclosure', 'cattle-shed' is compared to the Komi, Mansi, Khanty *karta* 'courtyard', Mordvin *kardas* id., *kardo* 'stable', but nothing is said about the Turkic correspondences of this word, e.g. Tatar *kirtä* 'enclosure', etc., and on the other hand, about the absence of analogous words in many Finno-Ugric languages. Thus, in Finnish 'stable' is *talli*, the word denoting 'courtyard' is *piha*, and 'enclosure' is *aita*, *aitaus*, whereas 'cattle-shed' is designated by the words *navetta*, *läävä*, etc., which cannot, of course, be identified with the Chuvash *karta*. The same goes for Estonian, etc.

Instead of these parallels which are absolutely necessary here, Egorov gives only the following note: "The word *kar* is Iranian. It was probably brought here by the Scythians (cf. Ossetic *kart* 'courtyard')."<sup>8</sup> However, the Ossetic language is by no means typical of the Iranian languages because it has borrowed an immense amount of Turkic words and it is necessary to prove that (1) Chuvash *karta* 'enclosure' is not Turkic, and (2) that Ossetic *kart* 'courtyard' was not borrowed from the Turkic languages. In the latter, the words of this root are encountered very often, cf. Coman, Karaim *kärt-*

-äk 'room', Lebed. dial. *kärt-kä* 'frame work of beams', Sagai, Koibal *kert-pä*, id. 'frame work' (over a grave or for housing of lambs), Teleut *kärt-pä*, id., Tatar *kirtä* 'fence', 'bar', 'obstacle', 'barrier', 'enclosure', 'pen', etc. Referring to an atypical Iranian language, namely Ossetian, Egorov does not say anything about Iranian proper, i.e. the Persian language. We find in Persian only the words *kāndar* 'city', 'town' and *kärt/kārd* denoting (a) 'work', 'action', (b) 'garden bed', 'sowed field'.

Thus, the discourse by Egorov appears unsubstantiated and is refuted by the facts. The reason is that he does not take into account the facts of the Turkic languages, even of Tatar, which neighbours Chuvash, and also that he does not pay sufficient attention to the Finno-Ugric languages, only using those facts from them which seem to corroborate the author's conclusions, whereas linguistic data contradicting his deductions is carefully avoided.

Further on, Chuvash *purta* 'axe', attributed by Egorov to the Pre-Turkic vocabulary, is compared with Udmurt *pur̄t* 'knife' and even Basque *burd̄in* 'iron' and German *Barte* 'pole-axe' but nothing is said about Tatar, Kazakh, etc. *balta* (the correspondence *r/l* in the Turkic languages as well as in the Altaic languages is a fact long since established) or that in Finnish and Estonian 'axe' is rendered by the word *kirves*, in Hungarian there is the Turkic loanword *balta*, the word *fejsze* having nothing in common with Chuvash *purta*, whereas in German, beside *Barte* 'axe', there are also the words *Beil* and *Axt*.

Chuvash *sim* 'sweet beverage' is compared to the Finnish *sima* 'mead' but nothing is said about Tatar and Bashkir *ə̄s-ə̄m-lə̄k*, Tatar *ə̄č-ə̄m-lə̄k*, Kazakh *iš-im-dik* 'beverage', etc. derived from the root *ə̄s/ə̄č/iš* 'to drink', to which the noun-forming affixes *-ə̄m/-ə̄m*; *-lə̄q/-lə̄k/-nə̄q/-nə̄k/-də̄q/-də̄k*, etc. have been added; the Turkish word *içki* 'beverage' derived from the same root, etc. The correspondence of the consonants *s/š/č/dž*, etc. in the Turkic languages is well known, and thus Chuvash *sim* 'sweet beverage' can be derived from Turkic *iš-im/ə̄č-ə̄m* in which the initial vowel has aphetized, as in Chuvash *laša/laža* 'horse' from Tatar-Turkic *alaša* 'gelding', Mishar-Tatar *alaša* 'horse', whence Russian *lošad'* 'horse' is derived.

This example together with other data from various languages suggests the conclusion that foreign loanwords are mostly used to render more abstract notions, cf. Russian *kon'* 'stallion', *kobyła* 'mare', etc. At any rate, it

is evidently true for Tatar loanwords in the Russian language, as well as borrowings into Russian from the European languages, cf., e.g., the words beginning with the sounds *a*, *f*, *x* and some others, which are all borrowings because, as it is known, the Indo-European *a* has developed into *o* in Russian, whereas *f*, *x* did not exist in Russian at all and appeared at a very late stage after many loanwords had been borrowed.

It is necessary to remark that aphaesis is common not solely in Chuvash but also in a number of other Turkic languages, e.g., in Tatar dialects to the West of the Volga River and to the North-West of Kazan, as I established with the help of instrumental-phonetic investigations on the material obtained from dozens of informants.<sup>9</sup> Cf. also Mishar-Tat. *sak* 'asp', *zak* 'for a long time' etc. with Qazan- (and Literary)-Tatar *usaq* 'asp', *ɔzaq* 'for a long time', etc.

Chuvash *šurla* 'sickle' is compared with the Udmurt *šürlo*, Mari *sarla*, Komi *čarla*, Hung. *sarló*, id. and is derived by Egorov from Udmurt and Komi *šur* 'horn' but nothing is said about the Turkic correspondences to this word. In the latter, the following words correspond to Chuvash *šur* 'to tear asunder', 'to saw', etc. Tatar *ur* 'to cut, to crop', Kazakh *or*, id., etc., whereas to Chuvash *šur-la* 'sickle' (*šur* is the root, *-la* is an affix) correspond Tatar *ur-aq* 'sickle', Kazakh *or-aq*, Uzbek *ur-oq*, id., etc. (here *ur/or* is the root and *-aq/-oq* is an affix). The correspondence Chuv. *š* / Turk. *j/θ* is well known.

Moreover, this is a typical case of sound correspondences between most of the Turkic languages, on the one hand, and Chuvash on the other, when, at the beginning of a word, in Chuvash, there is a combination of a consonant with a vowel to which, in the other languages, a single vowel corresponds in this position. Cf. Chuv. *šəvər* 'mouth', Tat.-Turk. *awəz/agəz*, id., Chuv. *ši* 'to eat', Tat.-Turk. *i-/ji-*, id., Chuv. *šənəx* 'meal', 'flour', Tat.-Turk. *un/ɔn*, id., etc. not to mention such well known correspondences as Chuv. *vun* 'ten', Tat.-Turk. *un/on*, id., Chuv. *vətər* 'thirty', Tat.-Turk. *utəz*, id., and so on. (Originally *je-* 'to eat', cf. also Kazakh *ʒe* 'to eat', Tung. *ʒə-p* 'to eat'. - Note by N. Poppe.)

To this it should be added that in Tatar, Altaj, Teleut and other dialects, there is the word *čar* 'oilstone', 'whetstone' from which the verb *čar-la* 'to whet' is derived; in Osman and Karaim, there is the verb *čark*

denoting the wheel of a machine or lathe; in Teleut, Lebed. and Kumandin dialects, there is the word *čar-gə* 'whetstone', whereas in Uzbek we find the verb *čarx-la-moq* 'to whet', etc. (The correspondences of the Chuvash *u* to the vowel *a* of the other Turkic languages is well known, cf., Chuv. *ura* 'leg', Tatar, Teleut., Altaj, Tary, etc., *aǰaq*, Osman *aǰak*, Šor. *azaq*, Sojon *adaq*, Yakut *atax* 'leg', etc.).

All this demonstrates the one-sidedness of Egorov's comparisons, the neglect of well-known material from the Turkic languages, which results in his etymologies being unsubstantiated and refuted by facts from the Turkic and other languages.

Moreover, speaking of Pre-Turkic onomastics, Egorov gives such toponyms as *Arzamas* (name of a town), *Samarka* (a river), etc., ascribing to the "Pre-Turkic old times" such "nouns in *-mas/-mäs*", "in *-mar/-mär*", etc. (p. 16). However, these affixes have correspondences in the Turkic languages such as *-myš/-moš*, *-mas/-mäs*, etc.; on the Volga river, there is the town *Samara* (from Turk. *Samar*, now it is Kujbyšev), on the Ohrenburg steppe, there is the river *Saqmar* (known because of a battle having taken place near it during the Civil war), etc.

Further on, referring to the Hungarian linguist Z. Gombocz<sup>10</sup>, Egorov attributes to the "Chuvash elements" such word of the Hungarian language as *kender* 'hemp', *borsó* 'pea', *árpa* 'barley', *ökör* 'ox', *ünő* 'cow', *borjú* 'calf', *szám* 'account', 'number', *söprő* 'yeast', *komló* 'hop', *gyűrű* 'ring', etc. although, in reality, all these words are by no means Chuvash but, on the contrary, are Common Turkic. Cf., e.g., Tatar *kindər* 'hemp', Tat., Kazakh, Kara-Kalpak *buršaq* (or *burčaq*), Bashkir *borsaq* 'pea', Tat., Kazakh, K.-Kalp., Uzb., Bashk., Turkish, Azeri *arpa* 'barley', Tat., Bashk. *uǰaz*, Turkish *öküz*, Kaz. *əǰiz* 'ox', Uzb. *hukiz*, Uigur *öküz*, id. (the correspondence *r/z* in the Turkic languages is well known), Tuva, Khakas *inek*, Buryat *uneen* 'cow', Tatar *bızau* 'calf'; Bashk. *bəđau*, Tuva *bəzaa* (Buryat *buruu*), Turkish *buzđi* 'calf'; Tat. a.o. *sum/som* 'rouble' (money), Tat., Uig., Kaz. *san*, Uzb. *son*, Bashk. *han*, etc. 'number'; Tat. *čüprä*, Bashk. *süprä/töprä* 'yeast'; Tat *qolmaq* 'hop', *ik-* (*igü*) 'to till and sow', *bözra* 'ring'. Some of these words are Common Altaic and none of them is specifically Chuvash, that is why these words by no means represent "Chuvash elements in Hungarian", but are Turkic (or Altaic) elements.

If one compared, as Egorov does, the Chuvash word *čir* 'illness' with Georgian *čir*, neglecting, at the same time, Tatar-Turkic *čir* 'illness', *čir-lä* 'to be ill'; if one ascribed the word *beleg* 'sign' etc. to borrowings from Old Slavic, although this word cannot be etymologized on the basis of the Slavic languages, neglecting at the same time, the Old Turkic word *beleg/bilge*, etc. 'sign, monument', etc. (e.g., in the well known monuments *Qutadyu Billig*, in the monument *Bilge Qayan*), the root of which is found in all modern Turkic languages in the forms *bel/bil/bəl* 'to know', the word itself often being found in Turkic languages, cf. Tat. *bilge* 'sign', *bəlak* 'information', etc.; if one declared, without any argumentation, the word *tenger* 'sea' to be Hungarian and Chuvash, whereas in Modern Chuvash it is *tines* 'sea' and there is no data about "Old Chuvash", this word being Common Altaic, cf. Turk. *dinğaz/teniz/deniz*, Mongol *tengis/teng(ə)s*, etc., Manchu-Tung. *tonger/tongēr/toni* 'sea, lake' (probably kindred to Hung. *ton* in *Balaton*) as well as Mongol *tenger/tengir/tengreg/tengri/tengr* 'heaven, thunder, God', Manchu-Tung. (Solon) *tenger* 'heaven', Turkic *tangara/taŋra/tāŋrə* 'God' and even Japanese *ten* 'heaven'.

## IV

Passing over to other Volga-Turkic languages, it should first of all be remarked that G. V. Yusupov has stated (1960) "according to legend, the Yumartyn tribe of Bashkirs originated from Magyars" and "in the toponymics of the western part of the Bashkir land, we encounter such names as *Mežery*, *Meščerovo*, *Možarovo*. These appellations, which are also met in a number of places of the Volga-Kama region, present, according to the statement of Prof. S. P. Tolstov, a variant of one and the same ethnonym Magyar" (here reference is made to T. A. Trofimova, *Étnogenez tatar Povolžja*, M.-L., 1949, p. 123). Then, Yusupov continues saying that Tolstov "connects the problem of the Russian *Meščera* with the problem of the Mishars and, as Trofimova writes, assumes that the Tatars and Mishars were a tribe of Magyars of which the Magyars of Hungary are an offshoot." Further on, Yusupov mentions (with reference to T. A. Krjukova) that in the Museum of the Peoples of the USSR in Leningrad, there are two collections of Mishar gar-

ments from the Bashkir country, the one "more Turkic" and the other "more Finnic" but nothing is said about the criteria underlying this classification.

The attempt to use the phonetic similarity of the words *Mishar* – *Magyar* – *Maĵar* (having linked them to the appellation of the Meščer Woods, with the historical Meščera) to support the inference that the Mishar-Tatars (who are recognized as Kipchaks and descendants of the Comans) are some turkicized tribes of Finno-Ugric origin is not new. As long ago as 1903, a well known Tatar public figure and scholar, G. Akhmarov, described this trend in his booklet *O ĵazyke narodnosti mĵarej* (Kazan 1903, pp. 5 - 6, 68 - 70) and referred to the works of a number of Russian authors, such as Nebol'sin, Vel'jaminov-Zernov, Moĵarovskij, Zolotnitskij, Čeremšanskij, Kazarinov, the Reverend E. Malov, etc., who presumed that the Mishar-Tatars were "Moslemized Meščera", i.e. a Finno-Ugric tribe. On the other hand, as Akhmarov writes, Moderach, Tatiščev, and Radloff counted them among the Tatars.

In contradistinction to these opinions, the views of the Finnish turcologist M. Räsänen are more realistic, e.g., in his article "Gibt es im Baschkirischen etwas Ugrisches?" (*Acta Orientalia Hungarica*, vol. XII, pp. 73 - 78). Having mentioned various hypotheses beginning with the presumption of kinship between the Hungarians and the Bashkirs, expressed by the monk Julien in the 13th century, Räsänen establishes only about a dozen words common to Bashkir and to the Finno-Ugric languages, and among them the Mansi word *myšar* 'mountain ash' which, as well as Tobol-Tatar *mĵār*, id., is, according to the author, derived from Mansi *pitšār* 'ashberry', whereas in other Turkic languages, it has the following forms: Kazan-Tatar *miläš/mäläš*, Ojrot, Teleut, Lebed. *pälä*, Chuvash *pilēš* originating from Mari *pilšə* ← *pizle* 'mountain ash'.

The Bashkir vocabulary is, according to Räsänen, identical with that on Kazan-Tatar, which is correct.

The author establishes some phonetic regularities common to Bashkir, on the one hand, and the Finno-Ugric languages, on the other, namely the trend towards labialization of the initial vowels and the development  $s > z > h$ , which ultimately results in the disappearance of the sound  $h < *s$  in the Finno-Ugric languages, whereas in Bashkir, it does not (it stops, so to speak, half-way); spirantization of the affrikate *č*, and substitution of the locative affix *-la* for the affix *-da* in Bashkir.



On the whole, the author takes a negative view of the hypothetical relationship of Hungarian to Bashkir as he writes: "Wir sind also bezüglich der angenommenen, nahen ungarisch-baschkirischen Verwandtschaft auch auf sprachwissenschaftlicher Grunde zu sehr vorsichtigen, wenn nicht gar negativen Schlüssen gekommen. Alles scheint darauf hinzudeuten, dass diese Stämme nicht einmal in längerer Nachbarschaft miteinander gelebt haben" (op. cit., p. 77), adhering thus to Sinor's sceptical view to which he refers<sup>11</sup>, but rejecting his opinion that the Hungarians have never lived in the Caucasus and that they have not come from the Transural area.<sup>12</sup>

## V

The work of archaeologists, ethnographers and historians contains many facts supporting the idea of historical interaction between the peoples of the Volga basin (Turkic and Finno-Ugric), which is reflected in the monuments of material culture. In the book *Volžskie bulgary* (containing a vast amount of material) the author, A. P. Smirnov, infers "that numerous elements of earlier cultures of that region are contained in the culture of the Bulgars, which suggests the conclusion that a great rôle was played by the aboriginal tribes in the formation of the Bulgar state".<sup>13</sup> In chapter IV, the interaction between the Volga-Turkic and the Volga-Finnic peoples is discussed, and he further says that "these ancient tribes" (i.e. the so-called "tribes of the bast ceramics" - U. B.) "served as the principal components in the formation of the Chuvash people, they also constituted the main nucleus of other peoples of the Volga region, namely, of the Mordvins and the Mari ..." On p. 75 of his book Smirnov says, with reference to G. F. Debets<sup>14</sup>, that "among the ancient peoples of the Volga region, the europoid long-headed and high-headed type characteristic of the Bulgar-Tatars of the 14th - 15th cc. was widely spread, to which the feature of the low-headed narrow-faced mongoloid type were admixed. The latter is very often encountered among the Chuvash".

Thus, according to Debets and Smirnov, who refers to the former, the Bulgaro-Tatars are europoid in contradistinction to the Chuvash, who are mongoloid, and the latter have common ancestors with the Mari and Mordvins. It is necessary to remark that the Tatars are, however, not homoge-

neous in the anthropological aspect, and considering all said above, it is worth mentioning that among the Kazan Tatars, i.e. among the descendants of the Volga-Bulgars, the europoid is nowadays very often encountered in spite of the conquest of Volga-Bulgar by the Mongols. The conclusion about the Chuvash being mongoloid by no means strengthens the views of Ilminskij, Egorov and others about the non-Turkic origin of the Chuvash if we do not presume - disregarding the well-known facts - that the mongoloid type is alien to the Turkic peoples. In reality, it is most probable that the Chuvash have better than other Turks preserved their mongoloid type, possibly because of their relative isolation, and a number of ancient linguistic peculiarities<sup>15</sup>, the latter having a Turkic and to some degree a Common Altaic but by no means a Finnic character.

The book by the Tatar scholar H. Yusupov *Vvedenie v bulgaro-tatarskuju ėpigrafiĕku* contains a great number of facts referring to the material culture and history of the peoples of the Volga region and their languages, which are taken into consideration by the author on the basis of a vast literature. Especially valuable are the addenda consisting mainly of photo-reproductions and interpretation of nearly seventy Bulgar-Tatar monuments containing epitaphs from the 13th to the 18th c. AD, and this is why these monuments have great linguistic importance. The author touches several times upon the problems of interaction between the Turkic and the Finno-Ugric languages and peoples and uses simultaneously historical, ethnographical and linguistic data, which distinguishes this work from many others. Discussing the problems of linguistic interaction, Yusupov shows prudence and cautiousness in evaluating the Finno-Ugric influence upon the Turkic languages and pays much attention to the Turkic loanwords in the Volga- and Permian-Finnic languages. Adducing numerous facts taken from modern and ancient Turkic languages, he refutes B. A. Serebrennikov's discourses about the "Finno-Ugric substratum" in Bulgar<sup>16</sup> but presumes the existence of a Finno-Ugric substratum in Chuvash.<sup>17</sup> Even in his preface, Yusupov says that he cannot agree with a number of statements made by Serebrennikov, whereas the propositions of the Chuvash specialists V. D. Dmitriev and N. A. Andreev are evaluated by him as "tendentious and erroneous"<sup>19</sup> and no wonder, for some specialists on Chuvash cannot even distinguish between the Christian and the Moslem systems of chronology.<sup>19</sup>

The essence of the problem is the one-sidedness of the approach to the matter on the part of these authors, which is manifested, first and foremost, in the neglect of facts of the Turkic languages. No doubt, it is possible to draw conclusions on the basis of generalizing the material contained in the literature, however, in order to judge the influence of the substratum on ancient Turks, it is necessary to know the respective material cultures, to be able to understand the Old Turkic inscriptions and to have a notion about Finno-Ugric as well as Turkic languages, especially about Tatar, the speakers of which, as is known, have been long since recognized as indisputable and sole successors to the culture of the Bulgars. Only consideration of all the factors can guarantee objective and reliable conclusions, whereas those who wish to derive the Turkic languages from the Finno-Ugric, as well as the supporters of identification of the the Chuvash with Bulgars practically operate only with linguistic data and even here confine themselves to a few *ad hoc* selected comparisons. This is why their inferences do not correspond to the real state of affairs.<sup>20</sup>

## VI

Recently Serebrennikov devoted some articles to the problem of Finno-Ugric - Turkic linguistic interaction in the Volga basin. He assumes that in Udmurt, the stress is fixed on the last syllable of the word and explains this as the influence of Tatar.<sup>21</sup> However, as was proved with experimental-phonetics in 1959, the word stress does not fall upon the last syllable in Udmurt, but on the first syllable of the word, whereas in the last syllable, only an increase of the vowel length has been registered.<sup>22</sup> In Russian, increase of vowel length accompanies stress, because in Russian there are no phonologically long and short vowels, neither does a qualitative vowel length (depending on the quality of the vowel) exist in Russian, and Serebrennikov, who is not acquainted with instrumental phonetics mistook the increase of the vowel length for stress. But in Udmurt, length and stress do not coincide, as well as in the Turkic languages, including Tatar, whereas the increase of the length of the vowel in the final syllable of the word is more characteristic of Udmurt (especially in the Northern dialects), and this is why there is no reason to presume a Tatar influence in this aspect. It is

not to be excluded that this peculiarity represents a very ancient typological feature of these languages and linguistic groups.

Analogous errors are found in Serebrennikov's works as concerns morphology and syntax. Thus, he states that in Komi-Zyryan there is a conjunction *da* 'and', e.g., *koč da ruč* 'the hare and the fox', whereas in Udmurt there is another construction, namely, *zičien atas* literally meaning 'the cock with the fox', which he ascribes to the Tatar influence, assuring the reader that Tatar also uses an analogous construction instead of that with 'and', e.g., Tatar *kujan belän tólkä*, which literally means 'the fox with the hare'.<sup>23</sup> However, the Komi-Zyr. *da* corresponds to Russ. *da* 'and', cf. Russ. *ty da ja* 'thou and me' and Tatar *-da/-dä*, cf. Tat. *sin dä min*, id.; besides, in Tatar there are conjunctions *häm*, and *wä* borrowed from Persian and Arabic more than one thousand years ago. In reality, there is no "coincidence" between the Tatar and the Udmurt forms for only the translation coincides (v.s.) and finally, Tatars say *tólkö* (dial. *təlkə*) but never *tólkä*.

Serebrennikov states that "the influence of Tatar might favour preservation of many syntactic features characteristic of the ancient Finno-Ugric languages of the Permian group".<sup>24</sup> However, such results could be produced only under the condition that all or the majority of Udmurts spoke Tatar and thus were bilingual.<sup>25</sup>

Further on, the replacement of the present perfect and the past perfect tenses with the past indefinite in Komi-Zyryan is attributed to the influence of Russian.<sup>27</sup> However, it is well known that, on the other hand, such substitution often takes place in various languages and represents a linguistic universal, and on the other hand, Russian has lost its complex system of tenses inherited from Indo-European, having acquired instead a number of the Finno-Ugric forms.<sup>28</sup>

Speaking of the vowel shift (*o* → *u*, *ö* → *ü*, *ä/e* → *i*, *i* → *ə*, *u* → *ɔ*, *ü* → *ǔ*) in Tatar and Bashkir, Serebrennikov, without corroboration, ascribes it to the influence of the Finno-Ugric languages. However, this makes him liable to give the same explanation to analogous facts of the vowel shift in a number of other Turkic languages, e.g., in Kazakh, Khakas, Kara-Kalpak, Uzbek, the dialect of the Tatars of the Ohrenburg steppe, of Siberia, etc., who all live far away from the Finno-Ugric peoples.

The appearance of the affricate *dʒ* in Udmurt, according to Serebrennikov, "alien to all other Finno-Ugric languages" is explained by "the existence of this sound in the Tatar language: *dʒir* 'earth'..."<sup>29</sup> In 1955 I proved on the basis of a large experimental-phonetic material that the sounds denoted by *č*, *dʒ* are spirants in Tatar.<sup>30</sup> And in 1956, Serebrennikov changed his position and explained the spirantisation of these sounds in Tatar as a result of the influence of a Finno-Ugric substratum.<sup>31</sup>

Further, Serebrennikov writes: "In the development of the Tatar consonantism, a general trend towards spirantization of some explosive sounds is clearly to be seen, especially that of the explosive affricates. The affricate *č* more closely resembles a palatal *š*, the affricate *dʒ* resembles the palatalized *ʒ*. In the same way, the fricative character of the sound *v* has increased, which is pronounced in the Modern Tatar language like the English *w*."<sup>32</sup> This tendency to spirantization is described by Serebrennikov without reference to any literature. It was mentioned by N. Ostroumov (1876), W. Radloff (1882), Kayum Nasyri (1895), corroborated by G. Sharaf's palatograms (1927, one informant) and finally established by me on the basis of instrumental data (1955, many informants).<sup>33</sup> However if we, on the basis of this so to speak spirantization, draw the conclusion about the influence of a Volga- and Permian-Finnic substratum upon Tatar, it will be incumbent upon us to admit that the same substratum has exercised a still greater influence upon Kazakh, Kara-Kalpak and other Turkic languages, which were never in contact with the Finno-Ugric languages, because in those Turkic languages, we find fricative consonants *š*, *ʒ*, *s*, *z* corresponding to Tatar *č* and *dʒ*, whereas the labio-dental *v* appeared in the Turkic languages, as a rule, only in 19th or even 20th cc., having been borrowed together with Arabic and later Russian words. Moreover, the transformation of labiodental *v* into bilabial *w* is not spirantization for both these sounds are fricative and the difference consists in that the former is articulated with the lower lip and the upper front teeth, whereas the latter is bilabial. The comparison with the bilabial English *w* is here out of place, because the latter can be pronounced with different width of the slit and in some English dialects can become a breath (noise) consonant.

Besides, there is only one example more given by him in support of his conclusion regarding the spirantizing influence of the Finnic languages upon

Turkic, namely the correspondence of Chuvash  $\chi$  to Tatar and Turkic  $q/k$  in two words: Tat. *qazan*, Chuv. *χuran* 'cauldron' and Turkish *sakal*, Chuv. *suxal* 'beard' (the correspondence Chuv.  $x$ , Turk.  $q/k$  had been recorded by Radloff in his *Phonetik ...*, but Serebrennikov does not refer to this source). However this example is inconclusive because, first of all, in Tatar and other Turkic languages, there are positional alternations  $q(k)/x$ , secondly, instead of the plosive  $q^x$  we often find fricative  $\chi$  or  $\gamma$  also in the Southern Turkic languages (cf. Uig. *suyal*, Kazakh. *sayal/saqal* 'beard', etc.); thirdly, Tatar affricates or spirants often correspond to plosive consonants in the Volga- and Permian-Finnic languages (cf., e.g., Tat. *dəyət*, Mari *təgət*, Udmurt *təkit* 'tar', etc., which I established with the help of experimental-phonetic. Cf. Russ. *degot'* [*dʲogət'*], id.)

Further on, Serebrennikov writes that in Mari the occlusion of some consonants ( $d$ ,  $g$ ,  $\check{c}$  and even of  $\chi$  (!)) weakens, e.g., in the intervocalic position, whereas in Tatar, the consonants  $\check{c}$ ,  $d\check{z}$  have no occlusion, whence he concludes that Tatar has been influenced by a Finno-Ugric substratum. And this is stated in spite of the fact that this phenomenon is more clearly manifested in Tatar than in the Finno-Ugric languages. However, this suggests the conclusion that, to the contrary, Tatar has influenced Mari and Udmurt. Just this was Serebrennikov's opinion in his previous article (1955), v.s., but here he does not even mention it (1956). And he began writing that Tatar  $\check{c}$  and  $d\check{z}$  are spirants after my article of 1955, but he never mentions it.<sup>34</sup>

Serebrennikov's assumption that the development in the direction of gutturalization is typical for the Volga-Kama Finno-Ugric languages, and his presumption that this is the result of influence by the Turkic languages is also erroneous. To prove his view, Serebrennikov only states that, in comparison to the Baltic-Finnic and Erza-Mordvin languages, more guttural articulated vowels are found in corresponding words in Komi, Udmurt and Mari, e.g., Udm., Komi *k̆li*, Fin. *kieli*, Erza *ke!* 'language' (other Finno-Ugric forms of this word are not adduced by Serebrennikov). But these correspondences cannot show the direction of the development as, generally speaking, it is equally possible that the palatal forms of the Baltic-Finnic languages are the result of a later development.

Turkic languages could also not have influenced the Finno-Ugric languages in this direction, because in the former, the contrary development,

namely gradual palatalization, has taken place. If we take the example adduced by Serebrennikov, i.e., the word denoting 'language', we shall see that it is palatal in most of the present-day Turkic languages, namely, *til/dil*, in Tatar and Bashkir *təl*, in Chuvash *čəlxe* and only in Old Turkic we find the guttural form *tyl*, which in modern languages is preserved in Sajan dialect, by the Karaims in the Crimea, and Yakut, whereas in Tuva, we find *dyl*, id.

It is important to note that the Mishar Tatars, who live to a great extent among Finno-Ugric peoples, more often use guttural forms than Kazan Tatars, who only come into contact with the latter, cf. e.g., Kaz.-Tat. *măcə* 'cat, äcə 'sour', etc. and Mish.-Tat. *maçə, açə*, id.

The comparison with Old Turkic proves that, in Tatar and Bashkir, the process of development from guttural forms to palatal has taken place, and the same is corroborated by the Turkic borrowings in the Volga- and Permian-Finnic languages which have preserved older forms (cf. Mari *salam*, Kaz.-Tat. *säläm* from Arab. *salām* the greeting of Moslems) as well as by Russian loanwords in Tatar and Bashkir (e.g., cf. Russ. *stol* - Tat., Bashk. *östäl* 'table', etc.). The Tatar linguist Lotfi I. Jafarov has proved (1955) that the Turkic languages are developing from guttural to palatal forms<sup>35</sup> and his discovery was taken up by many turcologists<sup>35a</sup>, but this fact has evidently escaped Serebrennikov's attention. To prove the development towards gutturalization in Chuvash, he writes that in that language, guttural vowels often correspond to the palatal of other Turkic languages, e.g., "Tat. *bar* 'there is', Chu. *pur*; Turkish *aç* 'hungry', Chuv. *văçă*; Turkish *sakla* 'gard', Chuv. *sykla*; Turkish *altın* 'gold', Chuv. *yltăm*; Turkish *oğul* 'son', Chuv. *yvăl*; Turkish *at* 'horse', Chuv. *ut*; Turkish *ay* 'moon', Chuv. *ujăx*; Turkish *ağaç* 'tree', Chuv. *jyvăç*"<sup>36</sup>. However, these examples (which I list in toto) do not prove the author's presumption.

Firstly, all these examples are, according to synharmonism, guttural words and not a single palatal word is contained among them. Secondly, according to instrumental-phonetic investigations (1954)<sup>37</sup>, the vowel *a* is articulated in the same place as the vowel *u* both in Tatar and Chuvash, moreover, Tatar *a* is even more guttural than Chuvash *ă* (*ə*), whereas Chuvash *a* is not more front than Chuvash *ă* (*ə*). And in general, the articulatory basis of Tatar is more back than in Chuvash, which is seen, e.g., also from the absence of laryngeal, pharyngeal and uvular consonants in Chuvash and their

existence in Kazan-Tatar as well as in the Eastern and Middle Asian Turkic languages. Thirdly, the articulatory basis of the Turkish language has shifted more to the front but nevertheless, the examples adduced by Serebrennikov do not prove a more guttural articulation in Chuvash, e.g., the Turkish vowels *a*, *o*, *u* are not articulated more to the front than the Chuvash vowels *a*, *ă*, *y* (*l*) to which they correspond in his examples. On the contrary, Chuv. *y* (*l*) is articulated more to the front than *a* both in Chuvash and Turkish, and the Turkish words cited, as well as the vowels in them, are not more palatal than the corresponding Chuvash ones. Fourthly (which is most important), the method of comparison is erroneous, because to prove his thesis, Serebrennikov compares Chuvash practically with only one language, namely Turkish. However, if we compare the Chuvash examples concerned with the corresponding words in other, especially Eastern Turkic, languages, we shall see that the Chuvash words in question are articulated more to the front, cf., e.g.

- Chuvash *yltəm* 'gold' - Uig., Coman, Chag., New-Uig., etc. *altun*, id.  
 Chuvash *yvəl* 'son' - Old., Turk., New-Uig., etc. *oyul*, id., Chag. *oyl-an* 'young man', etc.  
 Chuvash *jyvəç* 'tree' - Uig. *jygač*, Koib. *ayəs*, etc., Tat. *ayač*, id.  
 Chuvash *ut* 'horse' - Tuvinian *aht* 'horse' (pharyngeal *ah*), etc.

Thus, the application of Serebrennikov's method, consisting of selective comparison, results in making our conclusions (respecting Chuvash) dependent upon the object of comparison but not upon the language investigated. And even the addition of new examples from Tatar can refute the deductions conceived by Serebrennikov about the relationship between Chuvash and Tatar. Cf., eg. Chuv. *sələ*, Tat. *sələ* 'oats'; Chuv. *sien*, Tat. *zyjan* 'harm'; Chuv. *çələn*, Tat. *jylan* 'snake'; Chuv. *çəmərt*, Tat. *šəmərt* 'bird-cherry'; Chuv. *çəñə*, Tat. *janə* 'new'; Chuv. *çilxə*, Tat. *jal* 'mane' (cf. Chuv. *çəlxə*, Tat. *təl* 'language'); Chuv. *təm/təmə/təməkə*, Tat. *tūmgäk* 'hummock'; Chuv. *türə*, Tat. *turə* 'straight'; Chuv. *ülə*, Tat. *ula* 'to howl'; Chuv. *xəl*, Tat. *qəš* 'winter', Chuv. *xər*, Tat. *qəz* 'girl'; Chuv. *xərəl* 'to turn red', Tat. *qəsəl* 'red'; Chuv. *xər/xərə*, Tat. *qəryj* 'edge'; Chuv. *xərü*, Tat. *qəzu* 'heat, hot'; Chuv. *xəs*, Tat. *qəs* 'to press'. Serebrennikov's errors result, first of all, from his incompetence in Turcology<sup>38</sup>, for otherwise he would have known that in the Turkic languages, the articulatory basis shifts from a



more back position to the front as we move from the Easternmost languages to the Westernmost ones, and Chuvash occupies a position nearer to the western border of this linguistic area; in distinction to Kazan-Tatar and the Eastern and South-Eastern Turkic languages, there are no laryngeal, pharyngeal or even uvular consonants in Chuvash (only in the Lowland dialect I recorded the uvular  $\chi$ ) as well as in Turkish, Azeri etc.<sup>39</sup>, and in the Turkic languages in general the development proceeds from a more backward position of the articulatory basis to a more frontal one.

At the end of his 1956 article, Serebrennikov adduces some verbal forms in support of the Finno-Ugric - Turkic linguistic interaction. Thus it is stated (on p. 218 of the symposium) that the Tatar form *alaçaqmən* denotes 'I used to take' (Russ. "*voz'mu byvalo*") and that it is the future in the past (Russ. "*Buduščee-prošedšee*") tense of the verb *al* 'to take'. However, in reality, this form denotes 'I shall take by all means' and designates a future action but not one in the past, whereas Russ. *voz'mu byvalo* 'I used to take' must be rendered in Tatar by the form *ala idəm* or *ala toryan idəm*. To support his statement, Serebrennikov refers to p. 161 of N. K. Dmitriev *Grammar of the Bashkir language* (Moscow, 1948, in Russian). But Dmitriev gives no translation of this form on p. 161 (referred to by Serebrennikov) whereas his translation of it in p. 152 is 'I shall take by all means' ("*Ja voz'mu nepremeno*").

### Conclusion

The hypothesis of a Finno-Ugric - Turkic linguistic interaction, including the assumption of a certain Finno-Ugric substratum in some Turkic languages is not totally unfounded, but it has not been properly investigated. The influence of the Finno-Ugric languages on Volga-Turkic has been greatly exaggerated in comparison to what can be proven by the facts available. In many cases, Serebrennikov and his adherents ascribe to the result of linguistic interaction such peculiarities which present typological features common to many languages and linguistic groups. This error results from two main factors, namely (a) the application of a false method consisting of a selective comparison of languages and use of only such facts which seem to support the a priori concept of the authors, (b) neglect of the requirement

to proceed from facts which are in the possession of science and to assume the possibility of other states of things in ancient times only when there are real facts pointing in that direction. Thus we can, for example, assume that the development from the guttural to the palatal articulation must be to some extent characteristic not only of the Turkic but also of the Ural-Altai and other languages, and that the stock of words denoting abstract notions is enriched first of all by loan words as the example of borrowings into Russian from Tatar, Turkic, Arabian, Persian and European languages demonstrates.

In conclusion I should like to express my sincere thanks to Professor N. Poppe (Seattle) for his advice in some scientific problems concerning the history of investigation and for editing my work.

UZBEK BAITCHURA

#### NOTES

- 1 This article is based on the material from chapter VI of volume IV of my doctoral dissertation *Zvukovoj stroj tatarskogo jazyka v svjazi s nekotorymi drugimi tjurkskimi i finno-ugorskimi jazykami* (Kazan, 1960 - 65, the theses published in Moscow, 1962); the fourth (additional) volume is subtitled *K istorii metodologii issledovanija fonetiki nekotoryx tjurkskix i finno-ugorskix jazykov* (this volume was submitted in March 1965, whereas the first three volumes had been submitted in 1960 and published in the form of a book in two volumes in Kazan, in 1959 and 1961). The chapter in question is on pages 349 - 417 of the fourth volume of the dissertation.
- 2 *Izvestija Rossijskoj Akademii Nauk*, SPb, 1924, pp. 289 - 314.
- 3 See N. Poppe, op. cit., pp. 292, etc.
- 4 See the articles by N. Poppe "Die tschuvassischen Lautgesetze", *Asia Major*, 1, 1924; "Turkisch-tschuvassische vergleichende Studien", *Islamica*, 1, 1925; "Zur Stellung des Tschuvassischen", *CAJ*, 1974; "On Chuvash-Mongolian Linguistic Contacts", *Journal of the American Oriental Society*, vol. 97, No 2, April-June 1977, etc.
- 5 See V. Smirnov's review of W. Radloff's *Vergleichende Phonetik der nördlichen Türksprachen* in *Žurnal Ministerstva Narodnogo Prosvješćenija*, SPb, 1884, November, p. 1 of the separatum.

- 6 See N. I. Il'minskij "O fonetičeskom otnošenii meždu čuvašskim i tjurkskimi jazykami", *Izvestija Arxeologičeskogo Obščestva*, vol. V, SPb, 1865, p. 84 (sited according to G. Yusupov, *Vvedenie v bulgaro-tatarskiju épigrafiku*, Leningrad, 1960, p. 10).
- 7 V. G. Egorov, *Sovremennyj čuvašskij literaturnyj jazyk*, Čeboksary, 1954, p. 10, etc.
- 8 Egorov, op. cit., p. 14.
- 9 See U. Š. Bajčura, *Zvukovoj stroj tatarskogo jazyka v svjazj s nekotorymi drugimi tjurkskimi i finno-ugosrkimi jazykami*, Part II, Kazan, 1961, pp. 7 - 36, see also the addenda and other works by the same author on different languages.
- 10 Z. Gombocz, "Die bulgarisch-türkische Lehnwörter in der ungarischen Sprache", *MSFOu* XXX, 1912.
- 11 Denis Sinor, "Un voyageur du trezième siècle: le Dominicain Julien de Hongrie", *BSOAS*, 1952, pp. 589 - 602.
- 12 D. Sinor, "The Outlines of Hungarian Prehistory", *Cahiers d'histoire Mondiale. Journal of World History*, 4: 513 - 540, Neuchatel, 1958.
- 13 A. P. Smirnov, *Volžskie bulgary*, M. 1951 (275 pages + 18 tables and 1 chart), p. 3. There are references to the article by Smirnov of 1938, to the works by I. Firsov *Prošloe Tatarii* (Kazan, 1926), by Ju. V. Gotje, *Železnyj vek v Vostočnoj Evrope* (M.-L., 1930, p. 159), by V. F. Smolin, "Arxeologičeskij očerk Tatrespubliki" in *Materialy po izučeniju Tatarstana*, vol. II (Kazan 1925, p. 32) and others.
- 14 G. F. Debets, "Tjurko-finskie vzaimootnošenija v Povolžje po dannym paleoantropologii", *Antropologija*, M., 1932, No 1.
- 15 See also Jusupov, op. cit., p. 97 and others, where analogous views of S. P. Tolstov, P. N. Tretjakov and of others are also cited.
- 16 f. Jusupov, op. cit., section "O jazyke bulgarskix nadgrobij II stilja", pp. 66 - 99, especially p. 81, fol.
- 17 Jusupov, op. cit., pp. 90, 95 and others.
- 18 Jusupov, op. cit., p. 18. He has in view the following works: V. D. Dmitriev, "Nekotorye istoričeskie dannye k voprosu ob etnogeneze čuvaškogo naroda", *Sp. O proisxoždenii čuvaškogo naroda*, Čeboksary, 1957; N. A. Andreev, "Čuvašskie porjadkovye čislitel'nye v sravnenii s porjadkovymi čislitel'nymi bulgarskix namogil'nyx nadpisej", *Učenyje Zapiski Čuvaškogo naučno-issledovatel'skogo instituta jazyka, literatury, istorii i etnografii*, vypusk XIV, 1956, pp. 236 - 245; two articles by B. A. Serebrennikov are in the same two symposiums.

- 19 In the article "Itogi polevyx ěpigrافیčeskix issledovanij (1961 - 1963)", Jusupov demonstrates that "Chuvash historians attribute to the Bulgar time" the monument inscriptions which in reality "belong to the end of the XVII or to the beginning of the XVIII cc.", because, in their own ignorance, they mistook the inscriptions: the year 1123, the year 1157, etc. for dates written according to the Christian system of chronology, whereas in reality, they denoted years in accordance with the Moslem system of chronology (from the Hegira) and correspond to the years 1711/12 and 1744/45 Anno Domini, accordingly. To give an example, Jusupov refers to G. N. Pavlov's theses of the candidate dissertation entitled *Čuvaškaja narodnaja arxitektura*, published by the Academy of Building and Architecture of the USSR in Moscow, 1963 (p. 20), in which Pavlov tries to construct the history of the Chuvash ornament for eight centuries on the basis of this confusion of the systems of chronology (See Jusupov's article in sp. *Itogovaja naučnaja sessija Kazanskogo instituta jazyka, literatury i istorii AN SSSR (kratkoe soderžanie dokladov)*, Kazan, 1964, pp. 70 - 77).
- 20 See also the introduction to volume IV of my doctoral dissertation mentioned above, pp. 1 - 16.
- 21 B. A. Serebrennikov, "O vzaimodeistvii jazykov (problema substrata)", *Voprosy Jazykoznanija* (further V. Ja.), 1955, No 1, p. 11; B. A. Serebrennikov, *Kategorii vremeni i vida v finno-ugorskix jazykax permskoj i volžskoj grupp*, M., 1960, p. 265 (this is his doctoral dissertation).
- 22 See U. Š. Bajčura, "Sõnarõhu iseloomust udmurdi keeles (kümograafi abil saadud andmete põhjal)", *Emakeele Seltsi Aastaraamat*, V, Tallinn, 1959; U. Š. Bajčura, *Zvukovoj stroj ...*, part II, Kazan, 1961, pp. 244 - 255, etc. and other works by the same author.
- 23 V. Ja., 1955, No 1, p. 12.
- 24 V. Ja., 1955, No 1, p. 13.
- 25 U. Š. Bajčura, *Zvukovoj stroj tatarskogo jazyka v svjazi s nekotorymi drugimi tjurkskimi i finno-ugorskimi jazykami*, theses of the doctoral diss., M., 1962, p. 12; U. Š. Bajčura, "O nekotoryx faktorax jazykovogo razvitija", Sp. *Problemy jazykoznanija, doklady i soobščeniya sovetskix učenyx na X Meždunarodnom kongresse lingvistov* (Buxarest, 28, VII - 2. IX 1967), Moscow, 1967, p. 103; Wolfgang Veenker, *Die Frage des finno-ugrischen Substrats in der Russischen Sprache*, Bloomington, 1967.
- 26 V. Ja., 1955, No 1, p. 13.
- 27 L. c., p. 13.
- 28 See, e.g., the theses of my doct. diss., p. 12.
- 29 Serebrennikov, "O vzaimodejstvii ...", V. Ja., 1955, p. 11.

- 30 U. Š. Bajčura, *Zvukovoj stroj ...*, part I, Kazan, 1959, pp. 119 - 121, where also the history of investigation of this sound is outlined. See also U. Š. Bajčura, "Èksperimental' fonetika häm unyñ praktik ähämiyäte", *Baškortostan ukytyusyhy*, Ufa, 1955, p. 14, where also the instrumental-phonetic data is adduced demonstrating the fricative character of the sounds č, dž in Kazan-Tatar. See also my *Zvukovoj stroj ...* and other works. N. Ostromov wrote about fricative variants of Tatar č and dž in the preface to his *Tatar-Russian dictionary* of 1876, Kazan, W. W. Radloff in his *Phonetik ...*, 1882, Leipzig, whereas G. Sharaf proved it in his "Palatogrammy" experimental-phonetically (according to the data of one informant), see *Vestnik Naučnogo Obščestva Tatarovedeniya* No 7, Kazan, 1927, and on the basis of the data obtained from many informants, it was proved experimental-phonetically in my works.
- 31 In the symposium *Akademiku V. V. Vinogradovu k ego šestidesjatiletiju*, M., 1956; the same is repeated in Serebrennikov's book *Kategorii vremeni i vida ...*, M., 1960, p. 267.
- 32 Op. cit., p. 217.
- 33 See note 30.
- 34 U. Š. Bajčura, "Èksperimental' fonetika häm unyñ praktik ähämiyäte", *Baškortostan Ukytyusyhy*, Ufa, 1955, p. 14.
- 35 L. I. Jafarov, *Tatar tele üseštä*, Kazan, 1955; L. I. Jafarov, "Nekotorye fonetiko-morfologičeskie zakonernosti v razvitii tatarskogo jazyka", *Učenyje zapiski Kazanskogo gospedinstituta*, Kazan, 1958, vypusk 15, pp. 275 - 285, and other works of the same author.
- 36 Sp. Akademiku V. V. Vinogradovu ..., p. 217.
- 37 U. Š. Bajčura, *Glasnye tatarskogo literaturnogo jazyka v svete eksperimental'nyx dannyx*, Theses of the candidate dissertation, M.-L., 1953. Also È. N. Stepanova, "Zvukovoj sostav čuvaškogo jazyka v sravnenii s nemetskim", *Učenyje zapiski Moškovskogo gospedinstituta inostrannyx jazykov*, vol. VIII, M., 1954; U. Š. Bajčura, "Experimentell-phonetische Beiträge zur Kenntnis des Lautbestandes des Kazan-Tatarischen", *Acta Linguistica Hungarica*, Budapest, 1958, vol. VIII, pp. 173 - 247; U. Š. Bajčura, *Zvukovoj stroj Tatarskogo jazyka (èksperimental'no-fonetičeskij očerok)*, part I, Kazan, 1959, and other works by the same author.
- 38 See N. A. Baskakov, "K kritike novyx klassifikatsij tjurkskix jazykov", *V. Ja.*, 1963, No 2, pp. 77 - 80; U. Bajčura, doct. diss., vol IV, 1965, chapter VI, especially pp. 402, etc.; U. Š. Bajčura, "K metodologii fonetičeskix issledovanij", *Sp. Artura Ozola Diena, Zinātniska konference Fonētikas un fonologijas aktuālās problēmas, Referātu tēzes*, Rīgā, 1968, pp. 10 - 11, etc.
- 39 Except uvular χ registered by me experimental-phonetically in the Southern (Lowland) dialect of Chuvash which is nearer to Tatar.

## Additional Notes

- 5a The letter  $\text{ə} = \text{ə̇}$  denotes a mixed vowel, a kind of palatalized neutral sound corresponding, according to synharmonism, to its guttural pair  $\text{ə}$ ; the sound  $\text{ɟ} = \text{ɟ̇}$  is a labialized pair of  $\text{ə}$  and represents a palatalized neutral sound corresponding to its guttural pair  $\text{ɟ}$ .
- 8a Räsänen (*Versuch eines etymologischen Wörterbuchs der Turksprachen*, Helsinki, 1969, p. 422) considers Finnish *sima* 'mead' to be a borrowing from the Turkic languages, and derives Chuvash *sim* from *sim-/sim-*, Mongolian *sime* 'to suck' (note by N. Poppe). Cf. also Common Turkic *im* 'to suck' (U. B.).
- 9a Räsänen (p. 100) derives *šurla* from *\*čarlay(a)* from *čar* 'whetstone' (note by N. Poppe). As my dissertation (on which the article is based) was submitted in 1965, whereas Räsänen's dictionary was published only in 1969, I naturally could not use his excellent work at that time - U. B.
- 35a Sometimes without reference as, e.g., A. M. Ščerbak did, see my review in *CAJ* XXX, pp. 115 - 145.