

THE PROBLEM OF RHOTACISM/ZETACISM

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The problem of rhotacism/zetacism (and lambdacism/sigmatism) has always been in the focus of Turcological research. It was particularly our esteemed colleague Talât Tekin who dedicated a series of articles to it (AOH 22.51-80, 1969; *Researches in Altaic Languages*, ed. by L. Ligeti, Budapest, 275-284, 1975; CAJ 23.118-137, 1979). These articles are ingenious and suggestive; it seems to me, however, that the conclusiveness of Tekin's argumentation may be doubted.

Before coming to the main point of this paper, I wish to elucidate some areas which have remained obscure up to now (which lamentable situation is due to the fact that my dear colleague Tekin has not read - or has not read *adequately* - my articles).

(1) CAJ p. 120: "zetacism ... and rhotacism ... are only *sporadic* sound changes." - Cf. my article in TDAY-Belleten 1975/6.31: Bouda and Serebrennikov have shown in an excellent way that these are world-wide phenomena.

(2) Ibid. 123: "It sure makes the supporters of the Altaic theory happy to see that Doerfer ... has returned to Ramstedt's and Poppe's classical solution. It is also remarkable that the forms Doerfer reconstructs, e.g. **börja* ... look like Proto-Altaic rather than Proto-Turkic." - It is clear (cf. also Iben Raphael Meyer in AO Denmark 32.164, note 3) that the question whether the original Turkish sound is *z or *r̥ or *r̄ or *r bears no relevance whatever to the problem of Altaic relationship. Many solutions are possible in this respect, and none of them proves nor refutes (in general: concerns) the Altaic problem. We may say: a) Tu. *r̄ or *r̄j = Mo. r has its origin in Alt. *r̄; b) Tu. *z = Mo. r < Alt. *r̄ or *r̄j or *z; c) old Bolgar loanwords with *r̄ or *r entered Mo. - all these assumptions play no rôle whatever in the question of the relation-

ship of the languages called Altaic. Regarding only rhotacism/zetacism, one cannot say anything definitive about the Altaic problem, one can neither prove it nor refute it. - Furthermore, it is a well-known fact of diachronic development that languages lose unstressed Auslauts; therefore such a Proto-Tu. form as **borja* is by no means surprising nor "Altaic".

(3) Ibid. 133: "Numerous Altaic etymologies ... prove the theory of zetacism and sigmatism to be true. The adherents of the opposite theory ... must, therefore, prove that all these etymologies are false or incorrect. This would indeed be a task too difficult to carry out. It is probably for this reason that Doerfer ... has finally returned to Ramstedt's classical solution, that is, he now thinks that 'r, l' (or similar forms) may be somewhat more likely than z and š for Proto-Turkic.'" My answer: a) cf. supra: the question whether z or r̄ or r̄ or z̄ (or what else) is the original Proto-Turkish sound does not matter to the Altaic problem. b) I now prefer reconstructing, not *z, but *r̄j, but this is for *internal* reasons of the Turkish phoneme structure. Cf. TDAY-Belleten 1975/6.33 to 37.

(4) Ibid. 134: Tekin blames me for having contradicted myself. As he explains, I, on the one hand, reconstruct such forms as Tu. **borja* → Mo. *borā*, "based on the rather weak assumption according to which Mo. has never preserved *ij* diphthongs." On the other hand, I reconstruct Mo. *sira* 'yellow' ← Tu. *sjāra*. "Why, then, has Mo. preserved the *ij* diphthong in *sira*?" My answer: in TDAY-Belleten 1975/6.19-22 I have explained that *ja* of *non-first* syllables has become a (changing Tu. *r > z, e.g., **borja* > **bořa* > Common Tu. *boz*); on pp. 22-23 I have explained that **ja* (and other diphthongs of this type) in *first* syllables have become *i* (e.g., **sjāra* → Mo. *sira*). To cut a long story short: Tu. **ja*₁ → Mo. *i*, Tu. **ja*₂ → Mo. *a*. I have to request my esteemed colleague to keep in mind the fact (surely well-known to him) that "identical" sounds in different positions are different sounds.

(5) Ibid. 123-4: In his first article (written in 1969) Tekin pointed out that -r has become -z in Common Turkish, whereas -r- has remained -r-. I asked (in 1975) why, then, such forms as *bögür* 'rein' (with -r) and *qozi* 'lamb' (with -z-) exist. Tekin's response is: "As is known, I believe that r² and l² became z and š respectively in Proto-Turkic in final position, but in other positions they con-

verged with r^1 and l^1 ." (This would mean that in *köküz* 'chest' -z goes back to r^2 , whereas -r in *bögür* goes back to r^1 .) Furthermore, the forms with -z "could be explained as derivatives formed after the sound change from r^2 to z had taken place. Thus, *qazi* 'abdominal fat' ... could be analyzed as *qaz-i* (cf. Tu. *qarın* 'abdomen' ...)." (The author gives no explanation for *qozi*, although this word finds its counterpart in Mo. *quri-yan*.) My answer: a) my criticism was aimed at Tekin's article of 1969, the only article available to me at that time. But in this article Tekin says *nothing* about a distinction between r^1 and r^2 , l^1 and l^2 . He simply says (pp. 56-57): "Chuvaash (also Mongolian and Manchu-Tungus) r and l are older than Turkic z and š, and that the sound changes *r > z and *l > š took place in Proto-Turkic only in final position." And his reconstructed forms are simply **bojur* (= Common Tu. *boyaz*, *boyuz* 'throat'), **bor* (= Common Tu. *boz* 'brown-grey') ... (In contrast to this, in his article of 1979 he reconstructs such forms as *kör²*, *kür²*, etc.) That is to say, in the meantime Tekin has changed his description. Now, as I think, he is not justified in reproaching me for not having prophetically devined that some time after 1969 he would change his description (and, presumably, his opinion). As far as I see (and I hope to understand my esteemed colleague *now*), his original thesis was: "-r-, but -z", whereas now it is "- r^1 , - r^2 > -r-, but - r^2 > -z" (and analogously for l^1 , l^2). b) But the bad thing is that even now, after the article of 1979, it does not seem to be clear that roots with -z-, -š- do not exist in Turkish. When, e.g., Tekin compares *qazi* with *qarın*, deriving this word from **qaz-i*, one instantly asks whether this is not an *ad-hoc* invention. I do not know any suffix -I in Turkish added to nominal roots. Does Tekin mean that *qaz-i* has to be derived from a verbal root? But from which? From *qaz-* 'to dig'? Apparently not. And there are many other bisyllabic roots with -z-, -š-, of which the derivation from originally monosyllabic roots would be difficult. Here is a short selection of these words, namely those beginning in a vowel (in the order of Clauson's dictionary which, to be sure, shows only a small part of the Turkish roots):

İki 'lady', *ešu-* 'cover', *üši-* 'shiver', *ešid-* 'hear', *öšün* 'shoulder' (here is a question: when Tu. **qar²ın*, as Tekin means, has become *qarın*, why hasn't **öš²ın* become **öšlın*, why has it become *öšün*?), *azi-* 'boozé', *azıy* 'molar tooth' (I do not understand Tekin's recon-

struction *az-i-y*; from which word does he derive *azıy*?; *az-* 'go astray', e.g., has a long vowel in Turkmen, whereas *azi* 'molar tooth' has a short vowel; furthermore, the ending of the word is just the same as in, e.g., *elig* 'hand'); cf. also such words as *qozi* 'lamb', *kışı* 'person', etc. I feel, it's not my task to gather all these examples (and, eventually, to refute them) but Tekin's. By the way, I see no connection between -sXz 'without' (with fourfold vowel harmony *ı/i/u/ü* in Uigur and Manichaean Turkish) and -s/rA- (with *ıi* in the same dialects). The apparent distinction of vowels between these two suffixes is a fact acknowledged by all specialists. (Cf., e.g., Peter Zieme: *Untersuchungen zur Schrift und Sprache der manichäisch-türkischen Turfantexte*, Diss. Berlin, §§ 4.1.2.17, 4.2.1.8.)

(6) I do not realize precisely what Tekin means when using the terms "late zetacism", "late sigmatism". To be sure, such doublets as *tüş* 'dream' ~ *tül* id. exist. But why is š, in this case, later than, say, š in *düş* 'dig' which, according to Tekin, shows primary sigmatism? I have the impression that somewhere in Tekin's mind we may find such an idea as " $-l^2$ became š, but also $-l^1$, later on and in some cases, became š." But, then, why did not *all* -l become -š? Furthermore, I do not see that the ingenious scholar has avoided a vicious circle of this type: (Tekin) "The normal or, at least, frequent development is $-l > -š$ " - (Opponent:) "But in some cases we find -l and -š, side by side" - (T.): "That's secondary" - (O.): "Why?" - (T.): "Because the usual development is $-l > -š$ ". As I feel, my dear colleague ought to be obliged to explain *clearly* what he means: Is it so that in his opinion - r^2 , - l^2 have not become -z, -š in all cases but show variants in some cases (and in the positive case: how may these variants be explained?). Or does he mean that $-r^1$, $-l^1$ have become -z, -š in some cases, while remaining -r, -l in other ones? And then again: how may this situation be explained? Saying (Tekin 1969.77) that the sound change *r > z "did not come to a sharp end" is no explanation at all, since here Tekin does not distinguish * r^1 from * r^2 . Is it significant that Tekin offers no more examples of "late zetacism, sigmatism" in his last article?

It is evident that *many* explanations of such variants as -r ~ -z, -l ~ -š (late or early makes no difference) are possible *a priori*, have to be considered and checked. In some cases after Proto-Turkish -r/-l- different suffixes may have been added (*kör-š-* 'see'

> *kör-, kör-ış* 'eye' > *köz**). In other cases suffixes containing -r and -z may have had different meanings, in other cases an influence of Bolgar Turkish may be supposed, in other (many!) cases the suffixes and words Tekin alleges are (in my opinion) incomparable for phonological reasons (I see no connection between the factitive in -*tUr-* and the factitive in -*tXz-*, with fourfold vowel harmony), in other cases analogy may have influenced the forms, in some cases assimilations may have occurred, etc. Sound laws are not the only means of diachronical explanation in linguistics. To be sure, some of Tekin's comparisons are quite convincing (particularly – queerly enough – those of "late sigmatism"), but I feel that one has to check all these materials with more criticism.

(7) And this is my last (and decisive) point. Making spotchecks, I have the impression that many of Tekin's examples are either incorrect or dubious. (I feel that a fine method has been used by Louis Bazin in an article of his in T'P 39.228–329, where he marked his own assumptions as "sure, likely, possible", i.e., did not rank all his comparisons on the same level, as absolutely sure cases, according to the – alas! – usual method "I said it, it must be the absolute truth.")

As a random-choice of this assertion of mine I shall discuss the first five examples given by Tekin in 1969, pp. 58–9.

1. Com. Turk. *biz* 'awl' < **biz* ~ Yakut *bürgäs* id. < **bür-gäč*. – T. quotes the Yakut word according to Pekarskiy (apparently). But Pekarskiy's vowel lengths are not always reliable. Both Böhtlingk and the modern Russian dictionaries (Afanas'ev/Charitonov and Slepcev) show the form *bürgäs*. Stefan Kalużyński (RO 31:2.116) derives the word from *bür-* 'to twist, etc.' and regards the suffix to be a suffix of tools (just as many other examples in -*gAs*). Now, what holds true?

2. Com. Turk. *boyaz, boyuz* 'throat' ~ MK *boyruł* 'having white on the throat' (of animals), *boyurdağ* 'throat, gullet, pharynx'. – One has to consider the fact that terms of body-parts show a series

of particular suffixes.* One of these well-known suffixes (others are -*Xn*, -*GAK*, -*AK*, -*XG*) is -*Xz*, further examples of which are *ayız* 'mouth', *köküz* 'chest' (cf. Mo. *köke*); -*XrdAK* is, in my opinion, just a different suffix attached to the root **bogo+*, cf., e.g., *käkirdäk* 'windpipe'. (It is also possible that the form *boyurdağ* has arisen by the analogy-producing influence of *käkirdäk*.) A better example, i.e., one much more compatible with Tekin's thesis, may be *boyruł*. But is it absolutely sure? Or may the original suffix be *-*rXl*, and the later development **bogo-ř-r3l* > *boyruł*? The only other positive example of a suffix *-*(r)Xl* is *bögrül* 'having white on the flanks', the main word, *bögür* 'rein, flank' ends in -*r*, too. (*Başıł* may be a variant of *başıł* 'having white on the head'.) And must an analogy *bögrül* (in case we assume *bögür-ül* is correct) → *boyruł* be excluded? And what is the connection of Turk. *boyruł* with Mo. *buyurul* (which without any difficulty may be read *boyurul*, as well), a word which, however, means 'grey-haired (in general)? Is the Mo. meaning the original one? May Turk. *boyruł*, originally 'grey-haired', have changed its meaning because of the similarity to *boyuz*?

3. Com. Turk. *boz* 'grey' ~ Kirg. *borbaš* 'a big grey shrike', Chag. *borčün* 'grey duck' < **bor-čün*, cf. Mong. *boroyčün* 'grey', Turk. (dial.) *bortaq* 'kind of wild duck', *boran* 'wild pigeon'. – Kirg. *borbaš* must be a young compound (otherwise one would expect **borboš*), an explication by *boro* 'big' + *baš* may be much likelier. May we compare Kazakh *borbas* 'lazy'? As for the Turk. words: it is not clear whether they denote grey animals. DS, e.g., translates *bortak* this way: 'kirçil renkli yaban ördeği', i.e. 'a wild duck which is *kir*-coloured'; *kir* means 'white-grey, ice-grey', in contrast to *boz* which means 'brown-grey, swarthy-grey'. For the Turkish feeling, these are quite different colours. Chag. *borčün* is a loanword from Mo. *borjin* (cf. author: Türkische und mongolische Elemente im Neupersischen, I.224).

4. Com. Turk. *öz-* 'to crush, trample on; to press, oppress; to knead; to dilute' ~ MK *ärklä-* 'to crush, trample, tread on' < *ärklä-* (frequentative). – Instead of *ärklä-* read *irklä-* (Clauson 226),

* Tekin refuses this assumption in 1979.123, note 16. But cf. my article "Nomenverba im Türkischen", to appear in a Bombaci Festschrift.

* Cf., *inter alia*, Hans Peter Vietze: Plural, Dual und Nominalklassen in den altaischen Sprachen. Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin, 18 (1969), 485.

a word which, apparently, has nothing to do with *öz-*. Other variants are *iklä-*, *yiklä-*, cf. Robert Dankoff, James Kelly (ed.): *Mahmūd al-Kāšyārī: Compendium of Turkish Dialects, I*, Harvard University 1982, 291.

5. Mid. Turk *öz-* 'to scrape, scratch' ~ Turk. (TS) *ärsin*, *ärsün*, *ärsün* 'an iron tool used to scrape dried pieces of dough from the trough' < *är-sin*; for the suffix cf. MK *tüg-sin* 'kind of knot' < *tüg-*. – a) In the Turk. dialects we find even more forms: DS 1776–7 *ersin*, *ersani*, *ersön*, *ersun*, *ersün*, *erşin*, *erşün*, *evsün*. It is evident that all these manifold variants cannot be traced back to a simple Turk. **är-sin*. This word is probably a cultural loanword.* b) Is *öz-* 'to scrape' = *öz-* 'to crush'? c) Tekin even compares Mo. *ürü-* 'to grate, file'; this word cannot be connected with Turk. *öz-*, since the vowels are different. (Voltaire: L'étymologie est une science où les voyelles ne font rien et les consonnes fort peu de chose.)

Where Tekin's researches end the problems begin.

MATERIALIEN ZUR GESCHICHTE DES ŞAÐAŃGA-YOGA

II. Die Offenbarung des ŞađaŃga-yoga im Kälacakra-System*

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Im Vajrayāna-Buddhismus kennen zwei Tantras den sechsgliedrigen Yoga (*şad-aŃga-yoga*, tibet. *sbyor-ba yan-lag drug-pa*, kurz *sbyor-drug*, künftigt: SAY): das *Guhyasamāja-* und das *Kälacakra-tantra*¹. Der SAY des *Guhyasamāja's* (18, 140ff.) stimmt in der Folge der „Glieder“ (*aŃga*) mit jener in der hinduistischen *Amṛtānāda-Upaniṣad* (Vers 6)² überein, mit der Ausnahme, daß das 5. Glied im Buddhismus *anusmṛti* heißt statt *tarka*. Das *Kälacakra-tantra* stützt sich andererseits, was den SAY betrifft (Vers IV, 116f.), eindeutig auf das *Guhyasamāja*, wenn auch die Glieder anderen Inhalt haben³. Aus der letzten Phase des Buddhismus in Indien gibt es eine Reihe von Texten, welche den SAY zum Gegenstand haben⁴ und die meist zum *Kälacakra-Lehrsystem* zu rechnen sind. Am wichtigsten hiervon sind zwei Texte, die der Meister *Anupamarakṣita*⁵ verfaßt hat. Seine Lehrtradition wurde

*„Materialien ... I“ erscheinen im: *Indo-Iranian Journal II I Vol. 24 (1982)*.

1 Verf., *Şad-aŃga-Yoga*. Diss. München 1969.

2 Verf., *Materialien ... I*. Der *ŞađaŃga-yoga* im Hinduismus, in: *Indo-Iranian Journal II I Vol. 24 (1982)*, S. 13–22.

3 Verf., *Der sechsgliedrige Yoga des Kälacakra-tantra*, in: *Asiatische Studien*

4 Zusammengestellt in Verf. (Anm. 1), S. 131ff.

5 Ist Zeitgenosse *Nađapāda's* oder *Nāro-pa's* (956–1040), s. G. N. Roerich, *The Blue Annals Vol. 2*, Calcutta 1953 (jetzt Nachdruck in einem Band, Delhi 1979), S. 764; auch in Ju. N. Rerich, *Izbrannye trudy*, Moskva 1967, S. 351. *Tāranātha* erwähnt ihn in seiner *Religionsgeschichte* (A. Schiefner, *Tāranātha's Geschichte*, St. Petersburg 1869, S. 243, 246) in der Regierungszeit von *Bheyapāla* und *Nayapāla*, die ich auf 1008–1040 und 1040–1075 angesetzt habe, s. Verf. (Anm. 1), S. 116f.

* According to a kind information by A. Tietze, *ersin* etc. may be a loanword from Kurdish (*hesin*, *esin* 'iron'); but the problem is not yet conclusively solved.