SOME PROBLEMS OF ANCIENT TURKIC

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For anyone working in the field of Altaic linguistic history, it is essential to form some definitive views about the point of departure. Leaving aside the vexed question of the Altaic proto-language for each of the three Altaic language groups, a hypothetical Common Language is used for reconstruction: Common Turkic, Common Mongolian and Common Manchu-Tungusian. On the other hand, the period of the oldest monuments of these language-groups is usually labelled as Old Turkish, Old Mongolian, and Old Manchu-Tungusian. Old Turkish can be divided into three sub-periods: Early Old Turkish from the time of the formation of the Turkish Khaganate up till the first known linguistic monuments in Runic script, Middle Old Turkish from these times till the arrival of the Arabs in the Turkish world, and Late Old Turkish till the time of the Mongols of Chingis khan.

1 From the fact that the "Old" period in a period of the first documents of the language, it is clear that Old Turkish, Old Mongolian and Old Manchu-Tungusian are not necessarily overlapping periods. All end in the 13th century with the events of the rising Mongolian Empire, but the beginning of Old Mongolian, including Tu-yi-hun and Khit, and the beginning of Old Manchu-Tungusian, including Jurchen, is an open question.

9 There is also an other usage which marks the end of Old Turkish or Altertürkisch with the appearance of the Arabs, and calls Middle Turkish or Mitteltertürkisch the later period. A. von Gabain (Altertürkische Grammatik, pp. 1-3) uses the term Allegtertürkisch in the sense of the language "der noch nicht vom Islam berührten Türken Mittelerstaaten," which means that the late Ugar documents of Türkisch (12th century) are Altertürkisch while K. Reisch (1974) is Mitteltertürkisch, as it is also called by Brechmann. Puppe uses Alte Türkisch for our Old Turkish, but for the period 6th-9th centuries, Middle Türkisch begins with the 9th century and lasts till the 15th (see Introduction to Alte Linguistik, Wiesbaden 1960, pp. 59-67). According
But what was there before Old Turkish, that is earlier than the 8th century? Was this period—which we could call Ancient Turkic—a linguistically homogeneous one? Are we confronted with a Common or Proto-Language from which all the phenomena of the later periods can be definitively and unambiguously interpreted? It is clear that the Turkic languages prior to the 8th century were far from being homogeneous. Theoretically, we can divide this Ancient Turkic language into two periods. The one nearer to Old Turkish was a period when the peoples and languages, later forming the Turkish Empire, were already independent but still in close contact with each other, or some of each other. This was bound to result in early linguistic contacts among the Turkish languages and language-groups.

In the earlier period of Ancient Turkic, the later languages were only dialects and these dialects existed in a more or less continuous but vast territory. This period must have lasted for a very long time, and if there ever was a homogeneous Proto or Common Turkic language, it could only have existed prior to this.

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1 Use “ancient” or “vieux-turc” covers the period from the 8th till the 14th century. Baskakov (Voedete v istočnom torkočkom jazykë, Moscow 1962, p. 123) uses the term drevnesto-turk to for the epoch lasting from the 5th till the 10th century, with the periods from the 5th till the 14th centuries. Malov (Pamjatnosti drevnesto-turk, Moscow-Leningrad 1951, p. 3) uses the same term drevnesto-turk for the periods from the 5th till the 14th centuries. Similar inconsistencies could be quoted from many other works, but I do not consider the question of periodisation very important. It is merely a methodological help to arrange events, and each periodisation can have good arguments in its favour.

2 I use the Ancient and Old Turkish terms for the so called r-language, and Turkic for the combined r- and r-languages. Poppe’s “Turkish is Modern Ottoman Turkish. We also have to speak about Old Bulgarian from the 6th till the 13th centuries (including the Danube and the Volga Bulgarians); thus Old Turkish was a language called by Baskakov (op. cit., p. 118) and Poppe (op. cit., p. 57), the period of the language of the Huns. According to Baskakov, it lasted from 3rd century B.C. till the 4th century A.D. Since we know practically nothing about the language of the Huns, which was surely a more ethnical and political than a linguistic designation, I consider it more convenient to use the term Ancient Turkic.

3 Late Ancient Turkic is practically the same epoch as Baskakov’s “Hun period.”
I have sketched all this merely to make it clear that it is surely an oversimplification to assume a homogeneous Common Turkic —not to speak of Altaic—without taking into account Ancient Turkic and trying to interpret on its basis phenomena in Old Turkish, Middle Turkish and New Turkish. It could be counter-argued that we know nothing about Ancient Turkic. This is not a valid argument, since Common Turkic is also a reconstructed form, and if any period can be reconstructed from Turkish linguistic monuments and the present languages and dialects, then it is surely that form which is the nearest to Old Turkish and not that which is the furthest from it.\(^8\)

It seems to me, that quite a few problems of Turkish linguistic history can be solved more easily from a heterogeneous Ancient Turkic than from a homogeneous Common Turkic. To make this clear: if in a language \(B\) we find a phenomenon \(b\) and in a language \(C\) we meet a feature \(c\), it is not certain that this can be interpreted if we only suppose a proto-language \(A\) with the feature \(a\) from which features \(b\) and \(c\) can be deduced genetically. This is the old problem of the “Wellentheorie” versus the “Stammbaumtheorie.”\(^8\) The two theories do not necessarily exclude each other; they can be combined, and general linguistic experience teaches us that they must be combined. I would like, now, to put aside the question of a hypothetical, homogeneous Common

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\(^8\) It could be argued that there is no need to distinguish between Ancient and Common Turkic. I consider the difference between the homogeneous and heterogeneous (dialectal) stages essential.

\(^8\) The “Stammbaumtheorie” was put forward on the influence of Darwin by Schleicher (Die Darwinische Theorie und die Sprachwissenschaft, Weimar 1863). The formation of the languages was symbolized by the genealogical tree similar to that of the living world. This theory was widely accepted, mainly by the influence of Max Müller. The “Wellentheorie” was outlined by Johann Schmidt in his book Die Verwandtschaftsverhältnisse der indogermanischen Sprachen, Weimar 1873, and independently, similar ideas were pointed out in an early but then unpublished work of Schleicher. Schmidt stressed that many features of the Indo-European languages can not be interpreted by the family-tree. The IE proto-language had dialects, and some linguistic innovations spread over this dialectal territory as waves in the water. Although Schleicher never denied that there could have been contacts among the languages already separated, and Schmidt never denied that there was a homogeneous pre-Indo-European language, later studies tried to make two separate theories of them.
Turkic, leave sophistication about its reality to later research and concentrate on Early Ancient Turkic.

Having a more or less continuous linguistic area inhabited by speakers of various Ancient Turkic dialects, theoretically, we have to suppose that, in this period, things happened practically in the same way as they do in all similar cases. There were differences among dialects, but the isoglosses of the dialectal phenomena did not coincide in each case with the borders of the dialects. Moreover, there were features spreading over the territory—phonological, morphological and syntactical—but their isoglosses and the isoglosses of their realizations in concrete words, formatives etc., were not necessarily the same in each case. These are well-known facts to everyone acquainted with the theory of linguistic geography. Linguistic changes began as slowly consolidating tendencies with the old and new features coexisting in one synchronic unity. Some changes created doublets which then became stabilized and continued side by side in later periods as frozen survivals of an old variation. To illustrate what I mean I will now refer to the history of some non-Altaic languages.

In 16th century French there was a tendency in statu nascendi for a change: \( r > z \). The French equivalent of Latin cathedra: \( chaire \) became, in the Paris dialect, \( chaze as pre > pese, mere > \)

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*There is a general controversy about the reality of the protolanguages. The formulation of filioconid is ambiguous: "A reconstructed form, then, is a formula that tells us which identities or systematic correspondences of phonemes appear in a set of related languages, moreover, since those identities and correspondences reflect features that were already present in the parent language, the reconstructed form is also a kind of phonetic diagram of the ancestral form" (Language, pp. 392-303), Pulgram (The nature and use of proto-languages: Lingu X (1961) pp. 18-37) thinks that the protolanguage is only a methodological device, a formula, but not a real language. Reformalisation (Vvedenie v yazykovoznanie, Moscow 1965, pp. 325-326) polemizing with Pulgram, stresses that the proto-language was a historical reality. It can not be questioned that, in some cases, the starting point of a set of related languages was a homogeneous linguistic unit, in the measure that homogeneity exists at all. It is another question whether in all cases of related languages we have to depart from a homogeneous proto-language. Traubezhky writes: "Der Begriff "Sprachfamilie" setzt gar nicht die gemeinsame Abstammung einer Anzahl von Sprachen von einer einzigen Ursprache voraus" (Gedanken über das Indo-germanenproblem, Acta Linguistica, Copenhagen 1956, p. 81). I try to discuss these problems in a forthcoming work: Linguistic Theory and Linguistic Relationship*. 
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miše, bericles > beside etc. But this tendency later lost ground and ceased. Only the doublet chaire and chaise preserved this dialectal tendency. In the 4th century B.C. Latin there was a tendency for a change of the intervocalic [-z] to [-r], as in peces ~ pecoris, (< pecosia) bonus ~ honoris (< honosis) > (honor) or sana > sra etc. But in the word posita, the [-z] was preserved because of the clear etymological contact with sītus. Thus, we had later a preserved [-z] in front of a [-r] > [-r] in the same linguistic unity. Corresponding to German Haselnuss, we have English hazel-nut where intervocalic [-z] is preserved while German Hase figures in English as hare with a sporadic [z] > [r] development, and thus we have historical doublets [-z] > [-z] and [-z] > [-r].

Doublets preserving older synchronic alternations are evidenced from all languages. In most of the cases, the semantics of the two words diverged. Such well-known examples are: German Reiter and Ritter, Bett and Beet, Robe and Rabe, French plier and ployer, Finnish kaivo "well, fountain," kauw "pit, cavity" - and so on. It is especially interesting that in Hungarian we have such doublets as hajlik "to bend" and hajta "bent, awry." The Finn-

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* Cf. F. de Saussure, Cours de linguistique générale, Paris 1931, p. 214; R. Voretzsch-G. Radtke, Einführung in das Studium der Altfranzösischen Sprache, Halle 1951, p. 243; G. Conglomb, Grammaire de la langue française du xiiie siècle, Lyon-Paris 1951, p. 30; G. Grégy, A szószakadás (The word-split), Budapest 1962, pp. 16-17. This latter work is an excellent monograph on the theory and Hungarian realization of the linguistic doublets. I quote here and below examples with z > r and r > z developments in the hope that it will be clear from them, that the problem of rotarism and lambdacism can not be solved on pure phonetical considerations. It is a basic rule of historical phonology, that if and where, a phonetical development is possible, the reverse development is also possible. (See also D. A. Serebrannikov, O nekotorykh sprosnykh voprosakh sovremennoi russkoi iazykovedeniya (Russian language: Problems and questions of modern Russian linguistics), Yekaterinburg 1966, pp. 62-72).

* As it is well known, Ramstedt proposed to connect the Mongolian biker < *piker with Latin pecoris. Since the r-form is not older in Latin than the middle of the 4th century B.C., this etymology can surely be dismissed. The Italic languages other than Latin, preserved the IE -s, as Ostrobi and Umbrian. See P. Stoltz, J. H. Schmidt, Deutsche Grammatik, Handbuch der Klassischen Altertumswissen-

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* See Bonfante, On reconstruction and linguistic method: Werd I (1945), p. 136, we also: ans > are.
Ugrian velar ɣ· became, in almost all cases, h· in Hungarian, but sporadically ɣ· is preserved, as in the case above.¹¹

Let us now suppose that in a period of Early Ancient Turkic, in one area of its linguistic territory, the opposition of old r·z and l·z was weakened. What happened? In the epicentre of the phenomenon, the tendency of the fusion of the two phonemes was strong, while in farther places there was only, in a lessening degree, an alternation. In some places and in some words the fusion occurred while in others it did not. If this is true, we have to find the lexical isoglosses pertaining to this feature in the epicentre practically parallel, while in other places they are more or less intersecting. Furthermore, we have to find doublets which conserved this old situation. The study of the words with so-called rotaecism and lambdacism fully proves that, in reality, this is what actually happened.

Before presenting my material to show that the distribution of the forms with r and z and l respectively looks entirely like a dialectal distribution, I must call attention to the fact that it is not in each case that we have to do with the remnants of this Ancient Turkic dialectal variation. In some instances of doublets we have to do with Chuvash or Mongolian loanwords.

In the case of Turkish kizılık “hedge,” the Tatar equivalent of the word (köre) must be a Chuvash loanword because of phonological and linguistic-geographical reasons.¹⁶ It is certain that the name of the fish “pike perch, Lucioperca Sandra,” in Bashkir (käla), Tatar and Karakalpak (älä) are also of Chuvash origin.¹⁷ The Jakut word arru, “to write,” is of Mongolian origin.

¹¹ For details and bibliography see Grévy L., op. cit., pp. 16–19, 176.
¹⁶ Kizılık (Kizyl), kizılık (Abu Huseyn), kizılık (Kırğız, kizılık (New Uig., kizılık gül (Turki), petli gül (Yellow Uig.). The Chuvash form is köle, këre and the r-form is also present in Bashkir as këre. The Altai kizılık “petli,” Haran kizılık “Hacán” and Jakut kărak, düetl “žirik” or at least the second are surely Russian loanwords. The absence of the foot -h, the labiality of the second vowel and the fact that the word occurs in this form only in languages being in contact with Chuvash are arguments in favour of the loanword character of Tatar köre.
¹⁷ I have dealt with this word during the 27th Congress of Orientalists. The Chuvash form of the word is köle < käla < käly < kälək < kărak, < tälə. Fortunately we have documentation for all stages. Sla is present in Bashkir Tatar and Karakalpak, släk in Hungarian (kälə > kälä), all with the meaning “fish with teeth.”
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(cf. Mongolian жир- < цув- ~ Turkish چؤرъ - Hungarian zöve ~ German Zentz) and Jakut bassa-ška, "cull," also points clearly to Mongolian baró (< бироьол ~ Turkish бироьол). Such examples are numerous, we find them not only in

i.e. "Lucoperecandra," which is called by Hungarian fogy "fish with teeth," by German Zehnfisch and Žander "fish," while the Hungarian word was borrowed by Russianian (pajat, pajel), by Slovenian (želje, željčiček), and by Old Bavarian (Schlech). The term fish found its way into Mongolian where it figures as алий in the Secret History; later it is present in Literary Mongolian as siliýe and in Burjat as ziliýe with the meaning "two years old lamb." I.e. "the animal with full teeth; which dropped the milk-teeth." The same meaning has the Turkish word 5i88â, which is present in Hunsav and Sirin, in Bas Mahanna, in the Anonymous of Leiden, Abî Hüyûn, Burjat al-Mustâdâ and the al-Tubahâ. The modern Turkish languages knew the word in the same or similar meanings (Tatar, Dashkâ, Osmanâ, Čâbek, Türkî, Baraba, etc.) The term is calqued by Mongolian алийнэ "two year old lamb" i.e. "the animal with full teeth (solid)." The form with the original f- is present in the Dîrös of Kâypî as алий "two year old lamb," and in Jakut (bodók, bodók also пиже, пижне "two years old' already, теленек тил бөлен аг төр гооду дүүрөчөлүй, дүүрөчөлүй, тийрөө, тийпрөө"; тозоо сөзү гоо гоо о нап иккенет; molochëste nöö nöö ñaxuñ, ñaxuñ lañxe лула bâly(o)" (Pehlevâld). The word is a deverbal noun from f-ó- cf. it-ó- "nach den Milchrinnen die zweiten Zähne bekommen" (Rudolf Radloff W 3 III 1955). On the suffix see: E. V. Sevîçtan, Альфавит именного словосочетания в староцейском языке (сравнение с средними тыками альфавитов), Москва 1885, pp. 206-217. The word 5i88â was connected with it-ó- (< *iti-) "to swell" by Radloff (Wh., IV 1984), by Šerocks (Novaiolj ekañik decadat i diliq lid eşereq in ułqulik yuqqroq: Idiqlidqoš caviliñ ikañik quqroq, Moscow 1901, p. 115) and Docter (Türkische und Mongolische Elemente im Neupersischen II, Wiesbaden 1957, p. 328 where the Persian and Armenian forms are also quoted). The counting on animal's age by its teeth is a well known practice among the Turks and Mongols (see K. Ural-Kâba, Züct Sprachen der Alterbeziehungen des Türkischen und den Mongolischen Shas Mongolian 1: 31, Ulan Bator 1939, pp. 2-3). The Mongolian form was re-borrowed by Hakan (ašik) and Y appréci (ašik), while the Mongolian ašik was borrowed by Jakut (ašik). The history of this word shows that the Mongolian word had to be a loanword from Old Bulgarian, since if we suppose a hypothetical "Altair" )): we would then expect Mongolian ašik or ašik. The word is present in Old Bulgarian with š- (cf. Hungarian). In the Chuvash language, "tooth" is аш- < *аш и it-sha was borrowed by Cheresmens: šaš "Pike perch"). The Mongolian form ašivš < ашивш clearly shows the Bulgarian origin of the word. The history of this word not only shows a clear and unambiguous example of a Bulgarian borrowed in Mongolian, but also gives a hint to a relative chronology. This word could be first only in a time when animal-breeding was already highly developed. This says no more, but no less than that there was an Ancient Bulgarian and Ancient Mongolian conflict. I have no place here to quote the well-known controversy around the "Altai affinity," nor outline in full my opbolk, which I try to do in my forthcoming work on the Altai hypothesis.
the Siberian, but also in other Turkish languages. It is clear that such examples have to be separated.

In the case of Turkish boğ, “head,” and köş, “eye,” we expect forms in Chuvash with l and r respectively. However this is not the case, because we find gu and ku. These Chuvash words cannot be loanwords and there is no reason for supposing a complicated starred form as e.g. ballă. It simply happened that these two words, having a great functional frequency, did not undergo the fusion z > r and ș > l, and thus preserved an earlier stage as Latin positus or Hungarian kóf. The fusion of z and r and ș and l respectively was not an “ausnahmsloses Lautgesetz,” it was only a tendency which was very strong in the territory of the later Bulgarian languages.

While in the cases above we have z and ș-forms preserved in Chuvash, in other cases we find r and l forms in Turkish.

The Turkish word ogūlz “mucus” has an r-form in Kirgiz (ogūr), in Altai (ogūr) and in Jaktok (ogūr). It cannot excluded that these are Mongolian loanwords (cf. Mong. ᠪᠥᠭᠥᠷ “id.”), but it is surprising that we also find the z-form in Jaktok (ogūlz < ogūlz) with the same meaning and this can hardly be reconciled with supposing the bowring of the r-form. The Turkish word ısdil “to seek, search” occurs in most of the Turkish languages with -z. Therefore, the Jaktok form ısdil, ısdil- could, perhaps, be a Mongolian loanword, though we have not yet been able to find it. But, we do find the -r form in the work of Kılıçlar, and this points to the fact that here we have to do with an old isogloss. The Mısır köför, köför “proud,” the Kirgiz köbir “medililet’ayjı (çelovek), kopușa, mjamlja” seems to be a Chuvash loanword (cf. Chuvash köpər “narjad” > Cherman: kowra, kowra “Stutzer,” koбро “Stolz”). But if we take into account that we find

16 The word is a denominal verb of in “trace.” The verb can be met with, among other sources, in the Anonymous of Leoden (ısdil- vend ısdil), in the Qawemun (ısdil), in some Armoor-Kipchak documents (otula, ıtlo-, Grunho, Deny).
17 Cf. kürce (Kılıçlar), kürčeti (Codex Cumanscens), köğir (Tatar), köndes (Misher), kößer (Nogay), güöer (Chuvash dialect).
an r-form in the Qutadyn Hilig with Uighur script (Vienna Ms 24: 15 kiber) corresponding to the form kiner of the Namangan Ms in Arabic (41:1) then we have to consider the early occurrence of the r-form in Turkish. The l-forms of the Turkish word tüt “dream” in New Uigur (? tüt: “to speak while dreaming”); in Yellow Uigur (tel) and in Jakut (til) do not seem to be Chuvash or Mongolian loanwords, since in Chuvash we have telik (< *tölük), and in Mongolian tolge (< *tölge), the latter in the sense of “fortune-telling.” On the other hand, Tuva tolge “fortune-telling” and Kirgiz tolgo “id.” are Mongolian loanwords. The l of Jakut and Yellow Uigur must be very old because we find it in some of the old Uigur records of Turkestan.

The earliest occurrence of the word bir “to fold, to press together” is found in the work of Abu Hāyyān in 1313. The r-form can be found only in the Oghuz languages, in Türkmen, Azeri and Osmanli. The r-form can be observed in Kâşgari’s work, in Tatar, Bashkir, Kirgiz, Türkmen, Osmanli, New Uigur, Türk, Altai, Jakut and derivatives e.g. the word for “headshewl” is found in almost all Turkish languages.

19 But also kiber (134:7), kübër (66:20). Most of the Turkish r-forms are of Arabic origin (< kiber). But Mongolian kiber has preserved a Turkic r-form.

20 See Manca folk. “trûmen” Evisvski, Negdžal, Nani tolken “noo, snovideel”, Otta tolken “id.”, Manca folk. “id.”, the verbal form is in Evenskii tolit “salom lotkot”, Negdžal tolit “lotkot”, Evens tolkot, Otta tolkot, Otta tolkot “Nanu”, Manca tolkot. The Manca-Tunganian forms go back to a form *tlitk, which has to be a relatively old Mongolian loanword.

21 Cf. F. W. K. Müller, Uigurica 11 24:7, 58:1, Suarnaparahs 502:23, 504:5, Duschko-Maher, Uigurische Sprachberichte 90:79. The verb tüt occurs in Uigurica 11 34:27 and Kâşgari where tüt tüt is recorded. The l-form is known in almost all Middle Turkish sources and present languages.


23 Bir. “nammenwethawos” (Kâşgari), birati. “Falke, Runzal” (Kâşgari), birätät. “Frauhenschleicher” (Kâşgari), birätät “woman with veil” (Hunav und Strach), birätät, birätät “shawl for the head” (Chogstali), birätät “black weather, heat” (Abdi Hāyyān, Baidar al-Malikān), birätät “woman’s ever-dream” (al-Juhfii), bir. “sazlivat” as ekorji ruk, olit “I”, birüt “sazlivat” (Kîpchak, bir. “Abirnau, bitmenli” (Türkmen), birüt “to cover up, to envelop, to wrap” (Osmanli), birüt “dełat, skład” (New Uigur), birüt “to wrinkle” (Turk), birüt “składka, skorka (na platę)” (Altai), birüt “składka, peckryát, zaborat’ vo čelnidúa” (Altai Verhlebii) birüt “sward,


The verb költ, "to make shadow, to cover," occurs in the Diät of Kāşyari together with the derivatives such as költürüg "shadow," költük "shadow, cover." The derivative költüge "curtain, cover" is present in Tatar, Kirgiz, Osmanî, Turki, Hakass, Tuva; perhaps, some of them are re-borrowings from Mongolian. The l-form in the basic verb is present in Hakass (köle-) and Altai (köli), its derivative kölik, költüge "shadow" can be met with as early as Kāşyari, in Middle Turkish documents as the tefür published by Borovkov, in Hasrav and Şirin, among the Turkmen words of the Leiden Anonym, in Chagatai, at Abū Hayyān in the Bulyat al-Mušfîq, in the at-Tahaff, in the Qawânîn, and in almost all of the present languages.

In the cases enumerated, which could easily be multiplied, we find no semantic differences or, at any rate, not significant ones, between the doublets. But as I refer to it in the cases of chaire and chaise, or Behe and Bagge, etc., it is very common that there is not only a split in the form, but also a split in the semantic field.
The Turks had, and most of them still do, have two words for “to write.” Bili- was the word for writing with the brush, and yar- for “cut, score, notch the Runic script.” Yar- can be found in the Uigur monuments of Turfan, in Kâşîyari, in almost all of the Middle Turkish documents and in New Turkish, in the Khipchak, Oguz and Turkestian languages, but not in the Siberian languages and Jakut. The -r-form (yar-) developed in the sense “to split, carve,” and occurs in the Runic Irk bili, in numerous old manuscripts, and from the recent languages in the Khipchak, Oguz, Turkestian and Siberian languages. It is important that these two words did not converge in Chuvash where we find ir- “write” and yar- “split.”

The word ili- “to pierce, to make a hole” occurs in Kâşîyari’s work only in the passive voice (ili-il: “durechbroht werden”), the stem can be met with in Hunyar and Şirin, Chagatai, in the work of the Anonymous of Leiden, in the al-Tuhfat, in the Qawâmân, in the recent languages in the Khipchak, Oguz, Turkestian and Siberian languages and in Jakut. The l-form of the word shows

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19 Yar- (Irk bili, Qutadul Beylik Vienna Ms, Kâşîyari), yaril- “sich spalten” (Trachtenberg VI 46.275), yar- “raschlyavat, rasschlit.” (Tefsir), yar- “undruck” (Chagatai), yar- “gepunkt worden” (Ili-il “kolot”, raschlyavat, rasschlit, stñaspljat.” (Tefsir), Barsi, il- “ihd.” (Kiring), yar- “id.” (Turkmen, Azeri, Osmany), yar- (Turk), yar- “ihd.” (Altaï), yar- “id.” (Hakan, Turc). yar- “ihd.” (Altaï), yar- “id.” (Hakan, Turc).

20 Cf. ilul- “topurik (s lezviem, masszimeny poperez topurica)” (Tefsir), i- il- “to pierce”, ill- “to make a hole”, let- “hole” (Chagatai), let- “to bore” (Leiden), let- “hole” (Chagatai), let- “to bore, pierce” (Tefsir), let- “ihd.” (Qawâmân), let- “ihd.” (Armeno-Kipchak, Georgian), etc.- “dyryat.”

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21 The words “to pierce, to make a hole” (Turk), let- “ihd.” (Russian), i- “to pierce, to perforate, to penetrate, to make hole” (Turk), yar- “ihd.” (Turk), yar-il “ihd.” (Turk), yar- “ihd.” (Kâşîyari), let- “ihd.” (Turk), let- “ihd.” (Turk), let- “ihd.” (Turk).
a duality already in the early dialects. In the Turfan documents and in Käsärä’s work, it occurs with the meaning “to pierce, to make a hole,” while in the inscriptions of Kül Tegin and Bilge Khagan, it has the meaning: “to split, to open.” This duality can also be met with later. In the Tefsir, both meanings are present, but in most of the present languages only the meaning “to split” occur, and it also has the meaning “to make long stripes.” This shows clearly the influence of the word *til* “tongue.” Influenced by the word *til*, the vocalism of the word has also changed, becoming -i- (and its developments), but Azeri and Osmanlı preserved the older -iä-. 29

The first occurrence of the word *qatay* “spoon” is found in the records in Buhni script; and in the Uigur documents of Turfan, it occurs in almost all Middle Turkish sources and in the Kıpchak, Oguz, Turk eastan and Siberian Turkish languages. 20 The Mongolian form of the word (*qalbaya*) was borrowed by the Altai, Sor, Haksas and Jakut languages. 21 But the l-form *qatay* produziedvërvën, vylozëlvë (*gjönu*) (*Turk*), lit.: “probërvät (lohit),” produzïvan, produzïvät” (*Altai*).


23 Cf. *qalbaya* “Löffel” (Kazak Ruhhoff II 2/20), *külkül* “til” (*Altai*), *qalbaya*
in the meaning "little spoon, ladle, stirring wood" occurs in the Kipcak, Turkmen, Siberian languages and as a Tatar loan-word in Chuvaš. The word biletçik "bracelet" is a fusion of the words bilet "wrist" and gitçik "ring." The earliest data is Kâyvari, and it occurs in the Kipcak, Oğuz, Siberian, Turkestân languages and in Jâkut. The -r-form is present in Kirdiz, Azeri, Sart and Altai. It is remarkable that the Sart form (biletçik) and the Azeri form (biletçik) also contains -z.

The word for "insect" is qupus in the Turkish languages. We find it in the Runic inscription of Toyuk, in Ulugur records of Turfan, and in Kâyvari's Dîvan. It occurs in almost all Middle Turkish documents, and in every recent Turkish language. Important is the Kurait of Troki, where instead of the intervocalic -y- an -m- (qumuz), and the Altai where the -y- disappeared and a secondary long vowel developed (qös, qösöq), we find that the same happened in Hakass (qös). This word cannot be separated "süresheneme" muka "(Sör, Hakass, Sagul Radloff II 270), zubayyan "süd ütki" (Hakass), zubes "atuk iz süresheneme, süresheneme, sushm, Arman Çipenlo Eri", zubes (çubü) jas - zubes, zubes "süresheneme, sushm, jas, jas jas jas jas" (Jâkut).

Cf. kulek "kulek (metalîkesheka), kulek (lusevjesheka)" (Tatar), qubuk "kulek, kulek, kulek, kulek, kulek" (Süshenem), kulek "sasuk, sasuk, sasuk, sasuk, sasuk" (Târki), qubuk "kulek, kulek, kulek, kulek, kulek" (Târki). qubuk "sasuk, sasuk, sasuk, sasuk, sasuk" (Târki). qubuk "kulek, kulek, kulek, kulek, kulek" (Târki). qubuk "sasuk, sasuk, sasuk, sasuk, sasuk" (Târki). qubuk "kulek, kulek, kulek, kulek, kulek" (Târki). qubuk "sasuk, sasuk, sasuk, sasuk, sasuk" (Târki). qubuk "kulek, kulek, kulek, kulek, kulek" (Târki). qubuk "sasuk, sasuk, sasuk, sasuk, sasuk" (Târki).

95 On this word, its history and distribution, see L. Ligeti Nomos narev pour 'perc; brezdeč, korn' dans le langues slaves et dans le hongrois: Studia Slavica XVI (1900), pp. 249-250.

96 Cf. qupus (Toyuk: 39), qupus (Pervenclez III 12:83), qupus (Kâyvari), qupus (Çepeté), qupus (Budayat al-Muṭah), qupus (read qupus, alt-Tufalı), qupus (Târki), qupus (Târki Radloff II 900), qupus (Bashkir), qupus (Kirdiz), qupus (Kurait Troki, Radloff II 671), qupus (Ossenmüller), qupus, qupus (New Ulugur), qupus (Târki), qupus (Târki Shen), qupus (Altai), qupus (Altai Tufalı, Tuna Radloff II 623), qupus (Altai Tufalı, Bamaanu Verbički), qupus (Altai Tufalı, Kamaanu Verbički), qupus "cyn komsu kéde" (Altai Tufalı, Radloff II 525), qupus "id." (Altai Tufalı, Radloff II 620), qupus (Rusko-Russkaja Stene).
from the word for "ant": qomunqa. This word occurs first in the Runic Irk bitig, then in such Middle Turkish documents as the Anonymous of Leiden, Ahi Havyin, Bulpat al-Mustaq, at-Tufaf, and in the Modern Kipehak, Siberian languages and in Jakut. The Oguz and Turkestan languages have another word for "ant." From the available data, I would only point out Ha-

kass qomunqa, qomunqa, komunqa "ant" where -r- has been dropped, and Jakut qomuna, xoyardaos, where there is an alternation of 

-g- ~ -r-, we have -r- but the meaning is not "ant" but "insect."

In most of the Turkish monuments and languages Turkish qopar has the meaning "stringed musical instrument," already so quoted by Kätsch, it is also the meaning of the word (quyr) in Mongolian. In the Siberian languages, there are other words: in Altai, komunqay and körök, in Hakass kobor, in Sor köröyyay having the meaning "pipe." The two words are doubles. The developments of qopar have, in some Turkestan and Siberian languages, the meaning "jew's harp" an instrument with iron tongues on which one plays with the mouth and the fingers. In 

Jakut, the word qomus has the meanings "stringed instrument, Jew's harp and pipe."
I do not have space to discuss all similar doublets here. I enumerate only some of them: bőx “gland”, bőrt “gland, udder”, boyat “throat”, boyurduq “oesophage”, qob “girl”, qoqin and qoqnaq “female slave”, omnux “shoulder, shoulder-blade”, omuray, omurya “collarbones, vertebrae”, ősek “pole”, őşgen “peg”, ős “word”, őstől “speak”, lex “quick”, lexk “quick”, baš “head”, paltkök “great face, with great head”, ašak “knuckle-bone, dice”, Russian ənum “dice”, əš “young”, gal‘tiq “young, young plant”, etc. I would like to quote only one more example:

The first occurrence of the word ɨts “knee” is found in the Khil Tegin inscription, and it occurs in almost all of the linguistic records as well as in the present languages. The Hakanis form with a diminutive suffix (ɨes, ɨstânek) is remarkable, the same is found in Tuva (ɨstek) and in Jakut (ɨtnek “the forepart of the femur, knee”). Its r-form

börəy” (Turki), qobux, qobux “a Jew’s harp, also a rough guitar with horse-hair string” (Turki Shaw), qobux “bununleker” (Turanchi, Rudloff II 1620), qoqin “muzayka’n’iŋ strobzj instrument (e ujgarov ja ne videl v 1919, 1911, 1913 gg. muz. instrumentov)” writes Malov (Yellow Ulgur), kumux “vargan (metallophone) muzayka’n’iŋ instrument v forme nebol’ago podkovki s tonkimi metallicheskimi zavyskami, pripadayshim k sereznym on, pri ispol’zenii zvukovravniyajja
v ret, zvuk le kostyayshie kolebotelny ozyayka pal’cey” (Altai), azem “kumux (musicalljy instrument)” (Hokans), kumux, hómus “muzayka’n’iŋ instrument, balabkja” (Hokans Verbički), qobux Balabolka (Sor Rudloff II 661), kumux “kumux, vargan, dyyaban” (Tuva), kumux “koby, koluut, vargan, dyyaban” (Jakut), azem “koby, ednstruktny jakutskij muzikalnyj instrument sostavlenyj iz belonj rasteni s pritomnoj peschini, na kotoroj izgryvat pal’cami, jazaklja” (Jakut). According to Professor Ligeti (Un vocabulaire stenographique des Miao: Acta Oriental. Rome XXIX (1900), p. 168) the form qobux “espécie de guitare (q’t-pa)” of the Ulgur vocabulary of the Mongol period “renomme au mongol”. The Siberian r-forms can not be of Mongolian origin because of the vocabulary of the first cylinder, the diminutive suffix and the meaning.

I deal with these words in my forthcoming work on the Altau hypothesis.

 Cf. ɨts “who has knees” (Kai Teglo Ed, 15, 18, Bilge Ed, 15, 16), ɨts (1k bitliq ), ɨts (Turmanide V 4, Ulgurica II 47:4), III 25:12, Ulg. Sprachb. 101, II, 140/1, Heidt. II 32:3), ɨts (Kăpşerig), ɨts (Yugurk Ulgur), ɨt (Yugurk Arab), ɨt (Teher), ɨt (Huzvar od Sin), ɨt (Ben Mahmoud), ɨt (Ghoubout), ɨt (Léden), ɨt (Codex Canaensium), ɨt, ɨts (Abha Heyzou), ɨt (at-Tiibat), ɨt (Qaw-kin), ɨt (Yatah), ɨt (Basik), ɨt (Kirgis South), ɨt (Kirgis), ɨt (Karagalpok), ɨt (Nogal), ɨt (Turkmen), ɨt (Azbir), ɨt (Chamal), ɨt (New Ulgur), ɨt (Usjeg), ɨt (Turki), ɨt, ɨt, ɨt (Sabir), ɨt, ɨt (Yellow Ulgur), ɨt (Altai), ɨt (Altai), ɨt (Lebed, Ső Rudloff III 1497), ɨt (Coloma Kăbiski Rudloff II 1495), ɨt (Hakkas
is the word *tirsgök* “elbow” which can be found at Kőszegi, in the East Middle Turkish monuments, in the Kipchak, Oghuz, Turkistan and Siberian languages and in Jakut. The word *lirtek* has the meaning “Achilles tendon” in Kirgiz, “knee-cap” in Kiliärik. The most interesting feature is that where Hakass *lirtek* also means “the knee of the animal’s hind leg,” it is a very clear reference to the way of the semantic split; the joints of the fore and hind extremities originally had the same designation, and this split later used both pieces of the doublet.\(^{43}\) The Hungarian word *lérő* “knee” is a Bulgarian loanword, but it has a diminutive suffix of Hungarian origin.\(^{44}\)

It is not incidental that I have mainly quoted such examples where we find *z* and *r* and *l* and *dl* forms respectively within the Turkish linguistic area where there is no morphological opposition of the type *kör* “to see”, *kőz* “eye”. These examples were recently collected by Pritsak and Tekin.\(^{45}\) We have several reasons for not accepting the hypothesis that we have originally morphophonological reasons for such doublets:

1. If the *z > r* or *r > z* development had morphophonological

\(^{43}\) Cf. *tirsgök* “Arnaknoedheta” (Kőszegi), *lirsgök* “Ellenhegy” (Töröktenes in Lebden), *lirsgök* “id.” (Chagatai Zemkhe, Rudnî), “dün, jokatere du iran, conde” (Chagatai Pevet de Courteline), *lirsgök* “lokol”, *tech: kolno, kolomoc* (Tatar), *turk: lokol* (Hashke), *lirsgök* “skelesosszok受众side” (Kirgiz), *lirsgök* “lokol” (Karaulpas), *lirsgök* “ol.” (Nogai), *lirsgök* “ol.” (Torkman), *lirsgök* “lokol”, *engel, egel* (Avar), *lirsgök* “elbow, (d.) knee or angle (ed pipe or timber), windlass, horn” (Avar), *lirsgök* “kneed, bent” (Chinuaal), *lirsgök* “lokol”, *tech: kolno, (tech.) kolno (trubyy) (Üleke), *jognek* “lokol” (Yellow Ulgar, Hill), *tirsgök* “Kniekeheli” (Culim Kiliärik Rudloff III 1377), *lirsgök* “kolno zahedaj nagy kóshonego” (Hakass), *tirksgök, tirksgök* “prendzaj ex” hedra (Ijiklî), *kolno* (Jakut), see also Chuvash *šir, šir, širli, ček, čekun, čekusu* “kolno”.

\(^{44}\) The Hungarian word corresponds to an Old Bulgarian form *šir*. The diminutive suffix of this productive in Old Hungarian and goes back to FO *šir*.

\(^{45}\) G. Pritsak, Der “Rhodacium” und “Lambdacium”, UAB 1954 pp. 337–349. Here I can only refer to the very interesting paper, read by Tekin on the 27th Congress of Orientalists (Ann Arbor, Michigan) where I was also present and had the opportunity to discuss some of the details. I did not have the opportunity to read the full text which will be published in a forthcoming issue of Acta Orientalia Hungarica.
reasons, what are we to do with such words as: kütün “polecat,”
ašč “molot tooth,” elik “door,” kütük “hedge,” qoyi “lamb,”
tilök “two year old lamb,” goryaq “loek,” goryaq “stoke,” dąyq “kneeclebone,” elid “to hear,” köük “camel-coll,” srunyaq “drake,” sdril “to tremble,” qıran “couldrow” etc.? In these
words we would have to suppose an infix which is uncommon
in the Altaic languages.\(^\text{43}\)

2. If the r > x or z > r development were a morphophonological
one, then we have to explain the cessation of the opposition of
r:z and x:l in the Chuvash phonological system separately. This
would mean that we have to work with two hypotheses, instead
of one.

3. If the r > x or z > r development were a morphophonological
one, how could we interpret that the isoglosses of the separate
items of the doublets do not coincide. Why do we have t̄aďa-
in the Anonymous work of Leiden, in Qawúnin or in the Armeo-
Kipchak documents and t̄iďi- in Káyari and Jakut, why t̄il in
some Old Turkish monuments and t̄il in others?

\(^{43}\) I quote here only some r-forms and x-forms of the words above: kürüne (Mon-
golian), gěxenq “polecat” (Hungarian);₂ xilil t̄il (Chuvash) tácil “molot tooth” (Mongolian), adć “door” (Chuvash); kćiçek cf. p. 214, goryaq “stoke” (Mong-
golian > Siberian Turkish languages), for tilök see pp. 214–216, šrű “beck” (Chuvash),
kard “stake” (Hungarian), adćmik (Russian, which is not Turkish adć “one side of
the site” < ad, but Turkish adć, cf. the Turkmen expression: adćm adć olar-
“baptist parlour”, an Old Bulgarian has word in Russian), t̄il “to hear” (Chuvash),
gőr “paw” (Mongolian), köük “ld.”, (Hungarian), stći “drake” (Hungarian),
sdril “to tremble” (Chuvash), xwar “couldrow” (Chuvash). It can, perhaps, be
argued that all these words are derivations and that the r-forms were present
in the primary stem. But then we have to solve the following questions: a: the suffixes
joined the stem later than the x or r forms, but in such cases the -i- is preserved,
see kür “Kerlin des Pleis” bőš “eater”, kő “ei.”: the complex had the same history in intervocalic
position as on the word-end, but e.g. -iš is present in intervocalic position (cf.
bašč “Schmutz,” along “milde, fein” etc.), and then why not “stći- “constrict,”
or “elik “door” c: Here the problem raised under 4. below is especially difficult.
If there was an x after the word end, which fused with the r or r preceding it,
what has happened with the words which had other finals? Was this X specific to
the stems undergoing rotacism and embolization (irrespective of the direction of the
development)? Indication is uncommon to the Altaic languages in the
historically detectable past. But I would not adopt a wholly negative attitude to
this question for a much earlier period.

15 Arct Orientals, XXXII
4. If the r > z or z > r development were a morphophonological one, how are we to interpret such correspondences as Turkish öküz ~ Chuvash adokhâr? If there has been something unknown x (say -i) after the word-end, be it -r or -z, why has it disappeared in Chuvash and not in Turkish or vice versa. This could only have had dialectal reasons, and thus we have come back to my starting point. On the other hand, if there had been something in the case of the words ending in r and l or ñ and z, then we should also expect it after other word endings. The supposition that this has disappeared in some phonetical situations seems to be too bold in my opinion.

It is another question that in a time, and in some places where the phonological opposition of r:z and l:ñ was weakened, the economy of the language worked in the direction of using this functionless duality for morphological reasons. As there were semantic doublets, morphological doublets may also have existed. These developed on the dialectal basis sketched above.

It is quite natural that the weakening of the opposition r:z and l:ñ was not the only dialectal feature which spread with different intensity and isoglosses over the dialectal area of Ancient Turkic. A similar feature was the development of the initial y- to j-. The fact that we have j-languages with r and l and j-languages with z and ñ raises the problem of which was the relatively older development. I think that this question is not a necessary one. The j-development had a different isogloss from the discontinuation of the r:z and l:ñ opposition. The j-isogloss encircled the dialects from which developed later the Bulgarian, the Kipchak and some Siberian language. 44

44 I have no space here to discuss all opinions concerning the history of the y- and j- in Turkish, and its relative chronology in respect to rotacism and lambdaism. According to Hamsolt and Poppe (see Poppe, Vergleichende Grammatik der alttürkischen Sprachen, Wiesbaden 1865, p. 27 with bibliography) "Im Urtürkischen waren *e, *j und *g von vornherein und halten dent ein y-ergehen." This means that j- became y- in Ancient Turkish, and then later became j- in Old Bulgarian and in some Kipchak and Siberian languages. In this case, the Old Bulgarian (a j > r language) and the Kipchak and Siberian languages (j > z languages) have a common development in front of the other y > z languages. But this raises the question: if the y > j was an earlier development than r > z, then in the j-languages and the y-languages, the r > z development had to be independent. If the r > z
The same situation occurred with the fortunes of the intervocalic and final $\delta$. Thinking in the terms of the genealogical tree, we can hardly interpret the fact that the $\delta > z$ development occurred in a $y + z$ language (Yellow Uigur), in a $j + z$ language (Hakka) and in a $f + r$ language (Chuvash). But there is no problem if we suppose that this was also an isogloss, coinciding neither with the $j$:isogloss, nor with the isogloss of the submergence of the $r:z$ and $f:s$ opposition (see figure above).

Similar not-coinciding isoglosses can be traced in the case of other Ancient Turkic phonological, morphological and, perhaps, also syntactical developments. I will conclude my discussion with some problems of lexicology.

The word for "furrow" occurs only in Tatar, Bashkir and development was the earlier one, then the $y > j$ development in Old Bulgarian and in the Ripchak and Siberian languages independently developed. All these are highly unlikely, and show that in this case the family-tree conception leads to contradictions.
Nogai. The Chuvash yəran (č "Iran") cannot be a loanword from the later period, because of the r-form, it is Ancient Turkic. It was a lexical isogloss in a narrower dialectal area. For "sun," in addition to the common word kiin, the Turkish languages have two other words: kiıen and quyaş (all three have, perhaps, a common origin). The word quyaş can be found in the Kipchak languages (Tatar, Bashkir, Karakalpak, Karaim of Troki), in the Turkic languages (New Uighur, Turk), and in the Siberian languages, Sor and Altai. The word kiıen is present in some Kipchak languages (Bashkir, Konik), in the Oguz languages (Turkmen, Azerbaijani, Osmanli) and in the Altai language. The word quyaş in the form rəvel occurs in Chuvash.

The word for "stirrup" üzəği has labial initial in all available linguistic records: in Tatar, Bashkir, Kirgiz, Turkmens, Azerbaijani, Osmanli, New Uighur, Turk, and Altai; while it has illabial initial in Yellow Uighur, Baraba, Hakass, Tuva and Jakut. The Chuvash equivalent yəranə can only be connected with the latter, but the correspondence has to be an Ancient Turkic one because of the r-form.45

Summing up my conclusions: between the very hypothetical Common or Proto-Turkic and Old Turkish, there was a long Ancient Turkic period. In its earlier period, the Ancient Turkic dialects existed in a more or less continuous linguistic area. Several linguistic developments in this area spread over the

45 It is clear from the examples above that we have two types of lexical isoglosses: in one case the word is present in some dialects and absent in others, in the second case the word has one form in some dialects and another in other dialects. In the first case, it could be argued that which is not present now could have been present in an earlier period. But the fact that it disappeared in a coherent dialectal area is also a dialectal phenomenon. The most important data for irtəq "stirrup" are the following: a) with labial initial: üzəği "stirrup" (Tatar), üzəği "hame" (Tatar), üzəği (Hakass), üzəği (Altai). b) with illabial initial: teşər "stirrup" (Tatar), üzəği (Hakass). c) with labial initial and illabial initial: teşər (Tatar), üzəği (Hakass). d) with illabial initial: teşər (Tatar), üzəği (Hakass).
territory with different intensity and different isoglosses. This more or less synchronic and geographical development crossed the diachronic one. What we have now before us is not a unilateral development and cannot be deduced directly from a homogeneous proto-language. Undoubtedly, this draws a more complicated picture, but I think it is closer to historical reality. Now, we are faced with the task of exploring the dialectal structure of Ancient Turkic.

I would add only one final point. What could the cause of the discontinuation of the z:r and l:s opposition be? It is always hazardous to seek the "causes" of linguistic changes. Nevertheless, I would venture to suppose the influence of a substratum. This language had to have a phonological system in which the opposition of z:r and l:s was not present, and it had to be a language which was in a long and close contact with at least some of the Ancient Turkic dialects. Could this language not have been Ancient Mongolian?