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Editorial note

Turkic Languages, Volume 19, 2015, Number 1

This issue of *TURKIC LANGUAGES* contains articles of both general and more specific nature.

Delio V. Proverbio deals with an East Old Turkic text in Tibetan script, demonstrating that it is the complex product of “hyperphonetic” transcription, a kind of pronunciation guide for non-Turkic Buddhist monks. The paper is a contribution to the discussion on the phonological status of the grapheme *a-chuñ* as written in non-Tibetan texts. The claim that its seemingly random occurrence in some cases is the result of careless use of the Tibetan alphabet is challenged by the author, who introduces a new way of viewing the allographic context.

Éva Á. Csató and Aynur Abish examine comparative constructions in Karaim and Xinjiang Kazakh, showing that contact-induced changes may make highly endangered languages more complex than large and more vigorous languages.

Astrid Menz deals with the Gagauz suffix *-(y)ka*, copied from Slavic and used to derive feminine forms of nouns referring to persons. Like clitics, it is unaccentable and nonharmonic. Since its use is not obligatory, it can be regarded as not fully integrated into the language.

Ahmatjan Tash and Jinyu Zhang analyze so-called “psych verbs” in Uyghur, interpreting morphological causatives as lexical causatives and light verb constructions with *qil-* as analytical causatives corresponding to English constructions with *make*.

Birsel Karakoç deals with the positioning of Turkic interrogative markers (Q-clitics), examining the possible patterns in some Oghuz and Central Asian Kipchak languages and determining some general tendencies. The internal positioning of the Q-clitic in predicates and its free syntactic mobility are found to be typical of Turkish.

Sema Aslan Demir discusses semantic and morphosyntactic properties of the Turkmen markers *-Ay* and *-KA*, which are used to modify questions in the direction of speculative-dubitative meanings. It is suggested that *-Ay* has developed from conveying volitional notions to bearing meanings of epistemic possibility.

İbrahim Ahmet Aydemir examines morphosyntactic, syntactic, semantic and discourse functions of four types of interrogative structures in the South Siberian language Tuvan: polar, content, alternative and tag interrogatives. An interesting feature is that Tuvan, like other languages in the area, possesses interrogative verbs.

Bayarma Khabtagaeva analyzes compounds of Turkic origin in Yeniseian and discusses various morphological patterns found in them. Among the branches of the Turkic language family, only Siberian Turkic (Yenisey Turkic and Altay Turkic) has had direct contact with Yeniseian.

Mehmet-Ali Akıncı delivers a brief report on the successful 17th International Conference on Turkish Linguistics, where 155 papers and six plenary lectures were presented.

Igor Kormushin, Irina Kul'ganek, Dmitrij Nasilov and Irina Nevskaya contribute an obituary for Sergej Kljaštornyj (1928–2014).

Our field has lost two other internationally leading scholars in the last months. Talât Tekin passed away in Bodrum on November 28, 2015, at the age of 88, and György Hazai in Budapest on January 7, 2016, at the age of 83. TURKIC LANGUAGES will return to their lives and oeuvres in a coming issue.

Lars Johanson

In Memoriam Sergej Grigor'evič Kljaštornyj (1928–2014)

**Igor V. Kormushin, Irina V. Kul'ganek, Dmitrij M. Nasilov,
and Irina A. Nevskaya**

Kormushin, Igor V. & Kul'ganek, Irina V. & Nasilov, Dmitrij M. & Nevskaya, Irina A. 2015. In memoriam Sergej Grigor'evič Kljaštornyj (1928–2014). *Turkic Languages* 19, 3–7.

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Sergej Grigor'evič Kljaštornyj, well-known Russian historian of ancient and medieval Turkic civilizations and outstanding researcher of Old Turkic written sources, passed away on September 21, 2014, at the age of 87 after a long and severe illness.

Professor Dr. Sergej Grigor'evič Kljaštornyj worked at the Institute of Oriental Manuscripts until his final days. He was also vice-chairman of the Russian Committee of Turcologists at the Division of Historical and Philological Sciences of the Russian Academy of Sciences.

The academy has lost an exceptional scholar who made unrivaled contributions to research on the history of Central Asian nomadic states in ancient and early medieval times, as well as to the study of Old Turkic Runiform texts scattered across the vast territories of Siberia and Mongolia.

In his work, Kljaštornyj showed very clearly that the history of Turkic peoples, alongside other nomadic tribes of the Great Steppe, is an organic part of the history of Eurasia; it is also an inalienable part of the history of Slavic states in Eastern Europe. He was of the opinion that the development of statehood in the territory of Central Asia, South Siberia and the Volga basin in the early Middle Ages (the sixth to eleventh centuries) was connected to the rise of the Turkic Khaganate in medieval Inner Asia. The Turkic Khaganate's traditions were later inherited by successor states: the Uyghur Khaganate, the Kyrgyz Khaganate in the upper reaches of the Yenisei river, the Kimak and Kipchak states in the Irtysh basin, the Bulgar state, and the Khazar Khaganate in the Volga basin and in the Northern Caucasus. The unity of the social systems and political structures of these states, as well as their close ethnic and cultural ties allowed Kljaštornyj to treat the time of their existence and dominance in the Great Steppe as a single historical and cultural period—that of the Steppe Empires.

Sergej Grigor'evič devoted his entire life to investigating Old Turkic texts and the history and culture of Turkic peoples. In this respect, he followed in the footsteps of his great teachers—S. E. Malov, A. N. Kononov, and A. N. Bernštam. Already in his candidate dissertation he gave an original and innovative historical interpretation of Runiform Old Turkic texts that he considered to be primary sources for understanding historical developments in Central Asia. In this dissertation, he looked at the contents of the oldest texts in a Turkic language in a new way. It was only logical that after his dissertation was published (1964) it was translated into Chinese (1991) and Uyghur (2000).

Also later, he continued to interpret each newly discovered or previously known runiform inscription first and foremost as a source of historical and cultural information on ancient Turks and their neighbors.

Sergej Grigor'evič has left behind a significant research legacy encompassing more than 300 publications. He constantly reached new achievements, giving him new material to interpret and new research tasks to fulfill. From the time of his studies at the university until the last years of his life, he participated in various archaeological and epigraphic expeditions, first as a member and later as the head. Thirty years (1960–1990) of his work in Kirghizia, Siberia, and Mongolia were especially fruitful. His contribution to epigraphic research in these areas was the most prominent work after that of S. E. Malov and a few other scholars.

Nevertheless, the main goal of his research work—beginning with his first major work, his dissertation “Old Turkic Runic texts as a source for the history of Central Asia”, and ending with his last monograph “Runic inscriptions of the Uyghur Khaganate and the history of the Eurasian Steppe”—was to introduce authentic data contained in Old Turkic texts into the mosaic of historic events. Before Old Turkic inscriptions were discovered, their script deciphered, and their contents read and interpreted, that mosaic had not been nearly as interesting, many-sided and colorful; it had not contained important details on the contributions of Turkic peoples to historic processes. Among the international cohort of renowned scholars studying Old Turkic inscriptions, starting with W. Thomsen and W. Radlov, Sergej Grigor'evič Kljaštornyj gained his prominent and permanent place a long time ago.

He was the founder of regular Turcological conferences held in Leningrad. The proceedings of these conferences were published in the famous series *Tjurkologičeskij sbornik* ‘A Collection of Articles on Turcology’, the series whose editor-in-chief he remained until his death.

Sergej Grigor'evič also made an important contribution to research on the national history of the peoples of the former Soviet Union as the author of separate chapters, or the editor of academic publications on these topics. His prime objective was to write an objective and adequate ethnic history of a people, to prevent non-scientific or biased interpretations of its ethno-genesis.

Sergej Grigor'evič was born on February 4, 1928, in the city of Gomel' in the Belorussian Soviet Socialist Republic. From 1945 to 1950, he studied at the Oriental Faculty of the Leningrad State University in the Departments of Turkic Philology and History of the Near and Middle East.

He started working in 1950 as an employee at the All-Soviet Institute of Geology, first as a librarian (until 1953), and later as head of the Department of Bibliography.

In 1957, Sergej Grigor'evič obtained the position of junior researcher at the Sector of Turcology and Mongolistics at the Leningrad Division of the Institute of Oriental Studies, Academy of Sciences of the Soviet Union (AS USSR). After three years, he became the head of the library of this division.

Under the supervision of the well-known Turcologists A. N. Bernštam and S. E. Ma-lov, Sergej Grigor'evič worked on his candidate dissertation “Old Turkic Runic Inscriptions as a Source for the History of Central Asia”. He defended this dissertation in 1962.

A year after his defense, at the age of thirty-five, he became head of the Sector of Turcology and Mongolistics of the Leningrad Division of the Institute of Oriental Studies of the AS USSR. He held this position for fifty years until 2013. During this time, as a result of a structural reorganization of the institute, the Sector was renamed the Sector of Central Asia, and together with the Sector of South Asia formed the Department of Central and South Asia. Sergej Grigor'evič became the head of the Department as well.

In 2013, Sergej Grigor'evič became the leading researcher of the Sector of Central Asia. In 2014, he retired, but continued to work on problems related to runiform writing.

Sergej Grigor'evič was an active field researcher. He started his field research career as a laboratory assistant with the Pamir-Fergana Expedition and the Pamir-Altai Expedition of the Research Institute of Material Culture of the Academy of Sciences of the USSR (1947–1953). In 1949, he worked under the supervision of the well-known archeologist M. I. Artamonov, who headed the Volga-Don Archeological Expedition of the Institute of Oriental Studies mentioned above. From 1954 to 1959, Sergej Grigor'evič headed the Archeological Detachment of the Central Asian Geological Expedition of the Ministry of Geology. During the next five years (1960–1965), he was vice-director of the Ketmen-Tjubin Expedition of the Institute of History, Archeology and Ethnography of the Academy of Sciences of the Kirghiz SSR. From 1968 to 1973, he headed the Epigraphic Detachment of the Sayan-Tuva Expedition of the Institute of Archeology of the Academy of Sciences of the USSR.

Sergej Grigor'evič devoted 21 years of his life to expeditions in Mongolia. He was the head of the Epigraphic Detachment of the Soviet-Mongolian History and Culture Expedition of the Soviet and Mongolian Academies of Sciences for 19 seasons, having crossed the country many times in different directions. After his work in Mongolia, Sergej Grigor'evič was invited to Kazakhstan and Kirghizia as a participant in the archeological expeditions from 1991 to 1997. Later, he headed the Kirghiz Detachment of the Ethno-Sociological Expedition of the University of Wisconsin for five years (1998–2002).

Sergej Grigor'evič taught as Chair of Turkic Philology at the Saint-Petersburg State University from 1969 to 2009; and from 1995 to 2009 as Chair of Central Asia and the Caucasus. In 1995, he was invited to teach at Bonn University in Germany. From 1974 to 2012, he lectured at Kirghiz State University (Bishkek), Kazakh State Pedagogical University (Almaty), Eurasian State University named after L. N. Gumil'ov (Astana). He lectured at Indiana University (Bloomington, US), Jagellon University (Warsaw, Poland), Marmara University (Istanbul, Turkey), Budapest University (Hungary), Azeri University "Khazar" (Baku), and Kazan State University (Russia).

He supervised dozens of courses and diploma papers, and candidate dissertations written by Turcologists from Kirghizia, Kazakhstan, and Uzbekistan.

During his life, Sergej Grigor'evič formed a whole generation of Mongolian, Kirghiz, Kazakh and Russian researchers. Many of his students became leading researchers in their states.

The contributions of Sergej Grigor'evič to the development of history and Turcology enjoyed the high esteem of the scientific community: he was an honorary member of many foreign academic societies and honorary professor of many universities, several of which bestowed their medals of honor on him.

Sergej Grigor'evič Kljaštornyj was a member of the Academy of Sciences of the Republic of Kyrgyzstan, Honorary Professor of the University of Astana (Kazakh-

stan), Honorary Member of the Atatürk Higher Society of Research of Culture, Language and History (Turkey), Honorary Member of the Turkish Linguistic Society, Honorary Member of the Hungarian Kőrösi Csoma Oriental Society, Honorary Member of the Ural-Altaic Society (Germany), member of the Association of Turcological Research (US), Honorary Member of the Society of Central Eurasian Research (US). In 2005, he was awarded the Gold Medal of the Permanent International Altaistic Conference (PIAC) for his great services in the research on Old Turkic Runiform writing. Sergej Grigor'evič collaborated with Mongolian colleagues from the Institute of History of the Mongolian Academy of Sciences and was made Honorary Doctor of that Institute.

Sergej Grigor'evič was an industrious, decent, modest and kind person. His colleagues and friends loved him very much. His death is a great loss for modern Oriental Studies. However, his classic works remain with us; they will continue to be a source of knowledge about ancient and medieval peoples and a shining example of the historical interpretation of ancient texts.

Selected works of Sergej Grigor'evič Kljaštornyj

1964. *Drevnetjurskie runičeskie pamjatniki kak istočnik po istorii Srednej Azii*. Moskva: Nauka. 215 p.
- [with A. A. Kolesnikov] 1988. *Vostočnyj Turkestan glazami russkix putešestvennikov (vtoraja polovina XIX veka)*. Alma-Ata: Nauka. 223 p.
- [with A. A. Kolesnikov & M. S. Basxanov] 1991. *Vostočnyj Turkestan glazami evropejskix putešestvennikov*. Alma-Ata: Nauka. 133 p.
- [with T. I. Sultanov] 1992. *Kazaxstan. Letopis' trjox tysjačeletij*. Alma-Ata: Nauka. 375 p.
2003. *Istorija Central'noj Azii i pamjatniki runičeskogo pis'ma*. Sankt-Peterburg: Filologičeskij fakul'tet SPbGU. 559 p.
- [with D. G. Savinov] 2005. *Stepnye imperii drevnej Evrazii*. Sankt-Peterburg: Filologičeskij fakul'tet SPbGU. 346 p.
2006. *Pamjatniki drevnetjurkskoj pis'mennosti i étnokul'turnaja istorija Central'noj Azii*. Sankt-Peterburg: Nauka. 591 p. (pp. 571–586: Bibliography of his publications 1951–2005).
- [with T. I. Sultanov] 2009. *Gosudarstva i narody Exrazijskix stepej: ot drevnosti k Novomu vremeni*. Sankt-Peterburg: Peterburgskoe vostokovedenie. 362 p.
2010. *Runičeskie pamjatniki Ujgurskogo kaganata i istorija evrazijskix stepej*. Sankt-Peterburg: Peterburgskoe vostokovedenie. 325 p.

An Old Turkic text in Tibetan script: A case of hyperphonetic transcription?

Delio V. Proverbio

Proverbio, Delio V. 2015. An Old Turkic text in Tibetan script: A case of hyperphonetic transcription? *Turkic Languages* 19, 8–39.

The original aim of the present study was to add to the discussion on the phonological status of the Tibetan grapheme *a-chuñ* written in Tibetan script in non-Tibetan texts. As a result, the article argues that Sinologist Weldon S. Coblin was substantially right in stating that “neither ‘nasalization’ nor anything else can explain all the varied foreign elements represented in our data by ‘*a-chung* plus following consonants” (Coblin 2002: 181). Thus, according to Coblin’s statement, at least in some contexts, the grapheme *a-chuñ* seems to occur quite randomly. Some scholars have argued that this is a consequence of careless and loose employment of the Tibetan alphabet, a widespread habit among many copyists from Dunhuang.

In this article, this historical perspective is challenged by applying a new approach to the allographic context exhibited in Ms. Paris, BnF, Pelliot tibétain 1292, an Old Turkic text written in Tibetan script. Far from being a poorly transliterated text, it will be shown to be the complex (and obviously not entirely consistent) product of a “hyperphonetic” transcription process: a sort of phonetic pronunciation guide for non-Turkic Buddhist monks.

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1.1. Introduction

The original aim of the present study was to add to the long-lasting discussion on the underlying phonological encoding which involves the Tibetan grapheme *a-chuñ*, by examining a particular Old Tibetan written document: *Ms. BnF, Pelliot tibétain 1292* [quoted in the following as PT 1292].¹ This is an anopisthographic paper singleton which exhibits a (semi-)cursive Buddhist *dbu-med* (headless) script-style, and is datable to the end of the 10th-century;² see Moriyasu (1985: 46); Róna-Tas

- 1 It is my pleasure to express my sense of gratitude to Prof. Marcel Erdal, who afforded me manifold remarks and observations. I am also indebted to Sam van Schaik. Obviously, I take entirely upon myself the responsibility for what I state.
- 2 Though indirectly, Rybatzki (2011: 222) disagrees with this date, starting: “The earliest extant texts in *dbu med* script, falling into several different types, seems to date from the 12th century [...]”.

(1991: 107); Schaik (2013: 124, 127). It is an allographic (heterographic) Old Turkic text written in Tibetan script; see Róna-Tas (1991: 92–110). Regarding the Mainz series of Old Turkic fragments in Tibetan script, see Maue (1996: 210–222).

At first, I endeavored to establish a minimal set of graphotactic laws and/or constraints which assumedly govern the behavior of the grapheme *a-chuñ* within the aforementioned text. As a result, I discovered that—at least as far as particular graphotactic contexts are concerned—Weldon South Coblin was substantially right in stating that “neither ‘nasalization’ nor anything else can explain all the varied foreign elements represented in our data by ‘*a-chung*’ plus following consonants. The only possible and reasonable conclusion would seem to be that ‘*a-chung*’ functioned as an abstract marker which modified basic Tibetan consonant letters [...]” (Coblin 2002: 181). Even Hill, who disagrees with Coblin (2002) on his core thesis, is compelled to admit that “in Old Tibetan the final *v*- [i.e. the ‘*a-chung*’] occurs with mysterious inconsistency” (2005: 115).³

Just to briefly summarize Coblin’s argumentation: at least in some specific contexts, the grapheme *a-chuñ* seems to occur randomly.

Thus, according to some scholars, a local implementation of a sophisticated transcoding system, such as the Tibetan alphabet, is—in this specific case—a system implemented by learned Tibetan scribes with the support of Uyghur monks; see Kara (1978), Klimkeit (1990: 59–60), Takata (2000). Hill (2005: 118), among others, has concluded that “the transcribers were imperfect in their transcriptions”, resulting in a careless and loosely employed transcription. Schaik (2014: 328–331) depicted at length the typical “bad writer” “with only a limited grasp of the art of writing”, specifically referring to part of the manuscripts production in Dunhuang.⁴

3 As far as the graphotactic contexts are concerned in which the grapheme *a-chuñ* would have occurred in later times, i.e. from the beginnings of Classical Tibetan, see the insightful *résumé* by Ligeti (1961: 225–228).

4 This is probably not the case, but the application of such a category of “unskilled copyist” risks appearing—at least, within some particular historical contexts—as an epistemological escape, adopted by someone who is trying to avoid at any cost a substantial change of perspective. In this respect, the highly controversial debate around the so-called Artemidorus Papyrus is illuminating. (I limit myself to referring to the exhaustive analysis by Condello 2011, still the most complete bibliographic survey on this subject.) Against the overwhelming arguments which have been accumulated in favor of the hypothesis of a forgery—as a straightforward way of explaining the manifold inconsistencies of *P. Artemid.*—some researchers have begun to introduce the idea of a “subliterary product”, due to an inexperienced, non-professional scribe (Condello 2011: 172). An evolution of this generic perspective is the thesis according to which *P. Artemid.* was the unfortunate product of an untrustworthy antigraph and an even worse apograph, the errors of (at least) two “totally unreliable” copyists having merged in the final result (Condello 2011: 212). Here we arrive at the ultimate *coup de théâtre*: even the possible forger might have pretended to impersonate the character of the “incorrect copyist” (Condello 2011: 212).

The aforementioned historical perspective, within which previous scholars have evaluated the linguistic data from PT 1292, will be challenged in the present paper by applying an opposite approach to the allographic context exhibited by PT 1292. Far from considering the text to be poorly transliterated, my approach is to regard it as a complex (and obviously not entirely consistent) product of a ‘hyperphonetic’ transcription. In other words: PT 1292 is not to be regarded as the careless scribbles of an untrained copist, as commonly thought (in previous perspectives), but the sophisticated product of a highly cultivated monk (in the new perspective).

I will here try to briefly expand on the concept of hyperphonetic transcription. In the present contribution, the term “hyperphonetic” does not simply refer to the asymptotic “ideal of faithful transcription” (Coulmas 2003: 26–33), which may have been meant by Otto Jespersen’s “hyperphonetic” notation among others; see Jespersen (1889). It was once assumed that “the transfiguration of audible into visible sign requires interpretation”—and therefore, at any rate, “is bound to be imperfect” (Coulmas 2003: 32). What I mean is that the scribe of PT 1292, far from employing an (asymptotically) fully underspecified system of notation, i.e. a maximally economical notation set which encodes exclusively for articulatory gesture features denoting a phonemic status, endeavored to register any “acoustic variants” of the same phonological segment, according to a local, not always consistent, interpretation. Similarly, Jespersen, though with otherwise sound claims of consistency, tended to distinguish, in his “hyperphonetic” notation, even idiosyncratic utterances.⁵

Such a new perspective will trigger, in turn, a series of arguments, the first of which pivots around a new interpretation of the phonological status of the Tibetan grapheme *a-chuñ*. Eventually, we will come to delineate some major phonological features exhibited by PT 1292.

1.2. A preliminary consideration

Let us begin by assuming that the following empirical inference is a general statement whose truth is intrinsically universal:

(1) The transcoding (i.e. surface representation) of whatsoever set of *n* phonological—at least, phonetic—objects [I mean: a given set of *permitted* surface phonological/phonetic objects within a defined linguistic domain even not considering

5 See, for example, Jespersen (1889: 49): “Welsh *nh* in *nhad*, as pronounced by *Dr. Sweet* and *Prof Rhys* [italics are mine]:

—	β0	—	“
	γ „	—	7
	δ2	0	..
	ε3	—	1

(Cf. Sweet, *Spoken N. Welsh*, 10, 11). The same articulation is often found in a *scornful pronunciation* of Danish [italics mine]: “[*n h æ.*] for [*n æ.*] ‘no’”. Jespersen was here quoting Sweet (1885: 10, 11).

the (possibly minimal) set of graphotactic constraints which may govern the simplest of any possible syntagmatic positional behavior] is generally implemented by means of a set of $n-m$ graphemic objects, where $n > m$ and $m \neq 0$. Roughly speaking: within natural languages, a perfectly biunivocal phonological (phonetic) transcription system is only asymptotic, since the set of graphic signs that are used in writing a natural language is generally (if not always) smaller than the set of sounds to be represented.

Now, let us consider an actual set of p graphemic elements, for example the *complete* set of Old Tibetan graphemes (T_1); in analyzing the transcoding process from the actual set K of n phonological—at least, phonetic—objects, pertaining to (a specific) Old Turkic (sub-)domain, to the actual surface representation in T_1 , we would expect that, according to (1), $p = n-m$. This is definitely true. But what we might further ascertain is that K appears to be *not entirely* represented within T_1 . More than that: the merging of two or more items of K into one element of T_1 (i.e. the apparent unfaithfulness in transcoding them) is reverted; what we actually observe is that at least two elements of T_2 (the set encompassing the p elements of T_1 plus *at least* one extra element: $T_2 \{p_1 \dots p_n, p_{n-m}\}$) seem to encode one item of K in the surface representation. To better illustrate such an assessment, let us consider the following example.

Apparently, until now no one has noticed that there seems to be (at least) one extra element in the graphemic set exhibited by PT 1292, within whose text we observe two “variants” of the grapheme <S>. Regarding this grapheme, Maue and Röhrborn stated: “mit den 4 Sibilanten genügt das tib. Alphabet dem uig. Lautinventar völlig, soweit der Anlaut der ‘Silben’ betroffen ist. Im Auslaut dagegen läßt die tibetische Orthographie nur <-s> zu” (1984: 302); “Im [Auslaut der ‘Silbe’] ist nur <-s> zugelassen, und nur dieses Graphem kommt auch tatsächlich vor” (1984: 303); and “[...] Im Auslaut der ‘Silbe’ ist <-s> Archigraphem für alle Sibilanten” (303, note 92).

On the contrary, in PT 1292 we detect two apparently distinct graphemes (in facts, allographs):

The grapheme (allograph) <𑄖> (= Northern Brāhmī 𑄖, Modern Devanagari श), which occurs at least four times:

- II. 1c

versus the otherwise ubiquitous three-stroke grapheme <𑠘> (= Northern Brāhmī 𑠘, usually transliterated as <ṣ>; Modern Devanagari ष); see Schaik (2013: 124). A question arises: Are we observing two (diachronically)⁶ divergent variants of the same grapheme? I discussed this question with Sam van Schaik himself.⁷ According to him, it was fairly common for Dunhuang scribes to mix together different letter-forms, even in the same manuscript; see, for example, Schaik (2012: 425) on Ms IOL Tib J 1459.

To sum up, I think that we truly do have to do with an *enlarged* set of Old Tibetan graphemes, but enlarged for what purpose? We will eventually return to this last question when we reexamine PT 1292 in light of a (quasi-)hyperphonetic transcription system. For the moment, we may simply note that a straightforward, unsophisticated use of a defined set of symbols is incompatible with the systematic, though apparently obscure, employment of some extra ‘diacritic’ such as <ḁ>.

Before reaching the crucial point in which the vowel system denoted by PT 1292 will be described within the frame of the new approach, I must ask the reader to provisionally accept the following, entirely arbitrary transliteration code.

<(o [↑])> =	[o ₁]
<(ḁ _↓)(o [↑])> =	[o ₂]
<(y _↓)(o [↑])> =	[o ₃]
<(w _↓)(ḁ _↓)(o [↑])> =	[o ₄]
<(u _↓)> =	[u ₁]
<(ḁ _↓)(u _↓)> =	[u ₂]
<(y _↓)(u _↓)> =	[u ₃]
<(i [↑])> =	[i ₁]
<(ḁ _↓)(i [↑])> =	[i ₂]
<(y _↓)(i [↑])>, (y _↓)(i ^{↑→})> =	[i ₃]
<(i ^{↑→})> =	[i ₄]

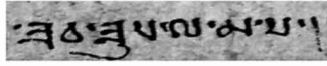
6 See Schaik, (2012: 416): “[...] the theory that *dbu med* developed out of *dbu can*—rather than being invented at the same time based on a different Indic script—is supported by a lack of exemplars in the Indic manuscript and epigraphic sources”.

7 In a private communication dated on January 7, 2015 Sam van Schaik stated: “[...] In the case of *sa*, I would argue that the change in form can be explained by the scribe not taking the pen from the paper, and therefore the “leg” on the left side of the letter gradually disappears [...] On the other hand, there is a strong tradition in Tibet that the *dbu med* forms came from a different script. It is not my view, but I would be interested in your argument if you follow this route. The Brahmi *ṣa* is a candidate, though one still has to explain why the top horizontal line disappeared in the Tibetan form”.

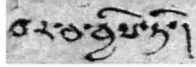
$\langle(e^{\uparrow})\rangle =$	$[e_1]$
$\langle(a_1)(e^{\uparrow})\rangle =$	$[e_2]$
$\langle(y_1)(e^{\uparrow})\rangle =$	$[e_3]$
$\langle C_0\emptyset\rangle =$	$[a_1]$
$\langle C_0(a_1)\rangle =$	$[a_2]$
$\langle(y_1)\emptyset\rangle =$	$[a_3]$

2.0. Previous assessments

Let us analyze the following graphemic strings:



12: $\langle zb\check{e}z(u_1)\check{s}\check{e}l\check{e}m\check{s}e\check{s}\rangle$ *sab sözlä {-mA} {-sA}*



30: $\langle br\check{e}\check{c}\check{e}b(y_1)(i^{\uparrow})\check{s}\check{e}t(i^{\uparrow})\check{e}\rangle$ *barca biš {-dI}*

At first glance, we may be led to infer (at least) two elementary graphotactic rules:

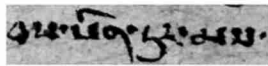
$$\begin{aligned}
 (2) &\rightarrow \sigma_{n-m}(\langle C_1\emptyset C_2\rangle) / \sigma_{n-m}(\langle \check{e}C_1C_2\check{e}\rangle) \\
 &\quad \downarrow \\
 &\quad \$CAC\$ \\
 (3) &\rightarrow \sigma_{n-m}(\langle C_1\emptyset\rangle) / \sigma_{n-m}(\langle \check{e}C_{n=1}\check{e}\rangle) \\
 &\quad \downarrow \\
 &\quad \$CA\$
 \end{aligned}$$

This is to say that

(2) a syllable represented (in surface representation) as a string of graphemes occurring between two *tsegs* is a syllable of the type $\langle C_1AC_2\rangle$;

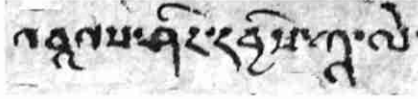
(3) a syllable represented (in surface representation) as a single grapheme occurring between two *tsegs* is a syllable of the type $\langle C_1A\rangle$.

A question arises: instead of a possibly expected $\langle b\check{s}\check{e}\check{s}(i^{\uparrow})\eta\check{e}\rangle$ *baš {+sIn}*, parallel to the string



43: $\langle b\check{s}\check{e}\check{s}(i^{\uparrow})\eta\check{e}d(u_1)r\check{e}m\check{s}\check{e}\rangle$ *basındur {-mAz}*

why do we actually observe such a kind of monstrosity as the graphemic cluster $\langle ab(a_1)a\rangle$?



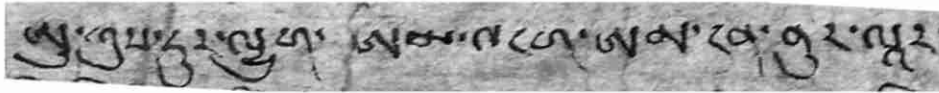
23: <ab(ā₁)asśś(i[†])ṇḍdb(y₁)(i[†])śḍg(ā₁)ḍl(e[†])ḍ> *baś*
{+sIn} *bič* {-gAlI}.

On the other side, scribes such as the one who wrote MS Mainz 712 (Maue 1996: 219–222) seem to accurately avoid the grapheme <ā> in any context, with the exception of the lexeme <māḍt(i[†])rḍ>, Sanskrit *Maitreya* (see 2.2.5.1. for a phonetic explanation of such an occurrence).

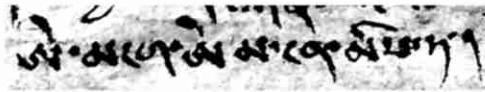
2.1. Róna-Tas' explanation

One of the most concise and to-the-point elucidations of a possible phonological function of *a-chuñ* is that of Róna-Tas (1991: 101): “[...] A word like Written Tibetan *dge-'dun* is pronounced as [gendun]. Therefore [?] we find the *a-chuñ* in non initial position in such cases as in *am-'ñag* where the *a-chuñ* is the marker of the nasal consonant, as can be seen [?] from the parallel forms where the same word is “*e-mñag*, and “*am-'ñag*”. See also Coblin: “[The *a-chuñ* is] a mark of nasalization or prenasalization” (2002: 170); and Hill: “In Old Tibetan *v-* before a consonant represented the nasal homorganic to that consonant” (2005: 114–115).

The examples cited by Róna-Tas concern the following lexemes: *ämgäk* (*emge:k*) ‘pain’ (Clauson 1972: 159a–b), and *ämgän-* ‘to suffer pain’:



3: <l(u₁)ḍk(u₁)śḍt(u₁)rḍl(u₁)gḍlmḍṇgḍlmḍṇḍn(u₁)rḍl(ā₁)rḍ> *üküş törlüg ämgäk ämgänürlär*;



33: <l(e[†])ḍmṇgḍl(e[†])mḍṇḍm(i[†])śḍtḍ>, *ämgäk ämgän* {-miš} {+de}.

What does Róna-Tas mean? Does he mean that the grapheme <ā> encodes for a segment exhibiting, among other things, nasality? If so, according to Róna-Tas, the syllable encoded in Runic writing as \$g₂(ā)k₂\$ (*Irk Bitig* § 57, see ms. British Library, Or. 8212, f. 49[verso], l. 3):

Ø	m	g ₂	Ø	k ₂	ḍ	ī
---	---	----------------	---	----------------	---	---

in Tibetan script would possibly have appeared both as \$mṇ(ā)g\$, and \$ṇ(ā)g\$ respectively. Therefore, the graphemic clusters <mṇ> and <ṇ> would both correspond to the Runic grapheme <g₂>. It is definitely the case that “the particular idea that ‘a-

chung was somehow inherently nasal encounters further and even more vexing obstacle in examples such as [the aforementioned ones]” (Coblin 2002: 176).

Let us consider the following synopsis:

Onset				Onset				
l	Ø	m	ʒ	ɹ	Ø	ŋ	G	ʒ
l	(e [↑])		ʒ	m	Ø	ŋ	G	ʒ
l	Ø	m	ʒ	ŋ	Ø	n		ʒ
l	(e [↑])	m	ʒ	ŋ	Ø	n		ʒ

Does the grapheme <ɹ> simply encode for a (monosegmental) vocalic onset—as can be inferred from Coblin’s statement: “a vowel or essentially vocalic element of some sort” (Coblin 2002: 170)? If we start from such an assumption, we might interpret the first two occurrences—even though they denote two different syllabifications: $\sigma_1[VC_1]$, $\sigma_2[VC_0]$ (ཨ་མ་འང་ག་); $\sigma_1[V]$, $\sigma_2[C_1VC_2]$ (ཨ་མ་འང་ག་)—as pointing to the reading /ämäjχ/ (with progressive nasal assimilation of the consonantic coda), which can be compared with Osmanlı *emek*, Azerbaijani *əmək*, versus OT *ämgäk*, Kyrgyz *эмгек*.

Such an interpretation relies on a poorly-founded assumption (a hidden claim) according to which the first occurrence of the *tseg* in the string <l(e[↑])ʒmŋgʒ> does *not* infringe on any graphotactic well-formedness condition. But if we assume that the first *tseg* may have merely been misplaced, we obtain the following, much simpler scheme:

σ_{n-m}				σ_n				
l	Ø / (e [↑])	m	ʒ	Ø / ɹ	ŋ	Ø	g	ʒ
l	Ø / (e [↑])	m	ʒ	ŋ	Ø	n	ʒ	

A variety of crucial observations can be drawn from this scheme. We choose to focus on the alternation between Ø and <ɹ>. Such an even distribution of opposite occurrences across our textual specimen would be regarded as the result of an oscillation between two asymptotic, polar systems; i.e. it would be considered a generalized case of the “indifference stage” already foreshadowed by Johanson (1978–1979). In other words: The system is in the process of evolving from one pattern to the other.

On the other hand, and from a strictly synchronic point of view, if we take into account the categorial opposition between *absence* (zero) and *non-occurrence*—according to the general definition suggested by Haim Baruch Rosén, see Shisha-Halevy (1986: 8)—since Ø and <ɹ> are co-occurring within the same specific envi-

ronment (and not in complementary, “suppletive” distribution), “the (non-) attestation may be interpreted as mere (non-) occurrence” (Shisha-Halevy 1986: 8; brackets are mine). In very simple words: the opposition is devoid of any significance: Again, the *a-chuñ*, though ubiquitous, appears to be meaningless.

2.2. A provisional hypothesis

In order to overcome such an aporia, we deem it appropriate to undertake a Copernican change of perspective by assuming the following: Ms. BnF, Pelliot tibétain 1292 has been written with an (at least partially) hyperphonetic transcriptional system.

This idea is by no means new: in reference to an Uyghur transcription of a Tibetan text, Kara wrote: “[...] the given text is not merely a transliteration, but probably a “reading style” form in which one can observe Tibetan dialectal features somewhat coloured by the Uigur pronunciation [...]” (1978: 165). This same idea clearly underlies the following statement by Hill: “The transcriber had done his best to *capture* the foreign sound in his own orthography” (2005: 119).

Now we may introduce a provisional hypothesis on some properties of *a-chuñ* as a (possible) phonetic marker:

(4) In pre-consonant position—more precisely, when occurring before a grapheme which encodes for a [-sonorant] segment—the grapheme ⟨ɹ⟩ is the marker of a consonant lenition, notably denoting a weakening of closure, along the coordinate of progressive sonorization,—as illustrated in Károly (2012: 11)—*versus* a fortis articulation (the strongest segment type being a voiceless stop); see Lass (1984: 178); Kirchner (2001: 86, § 2); Szigetvári (2008: 96). From a comparative point of view, see Hill (2005: 119–122).

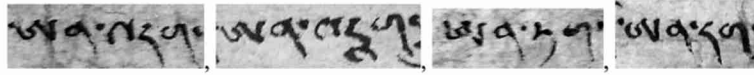
2.2.1. Dentals

Here are four sets of occurrences of the lexeme *anday* ‘*andak*, like that’, each denoting a slightly different graphemic string:

12, 13; 34: ⟨lnɹɹdgɹ⟩; 27: ⟨lnɹɹd(ɹ)gɹ⟩ vs 11, 19, 24: ⟨lnɹtgɹ⟩; 21, 30, 36: ⟨lnɹdgɹ⟩. To be compared with Brāhmī *āndaχ*,⁸ ⟨āndaγ⟩, ⟨āndah⟩ (von Gabain 1954: 85), Runic ⟨ndγ⟩ (Orkun 1941: 10), and Syro-turkic ⟨lnθɹx⟩ (Yoshida, Jun’ichi & Chimeddhorji 2008: 246

8 According to Proverbio (2014a), the grapheme ⟨γ⟩ represents, at least within an idiosyncratic Old Turkic Brāhmī domain, the phoneme /h/. Erdal (personal communication) insightfully remarked that, “regarding Brāhmī *āndaχ*”, which derives from “a morphologization of the sequence *an* (or possibly *an-*) *täg*—such a morphologizations being more common with pronouns than with nouns—I am not aware of a general rule of final devoicing in Old Uyghur before the arrival of Mongol influence (Classical Mongolian showing final devoicing)”. The question deserves more discussion. I merely observe that, even within the limited corpus-based survey done by von Gabain (1954), there seems to be some evidence of such a phenomenon.

no. 128 l. 10). On the opposition between the graphemic clusters <nd> (ཎ) and <nt> (ན) in Brāhmī script, see Johanson (2013: 178).



According to statement (4), we may derive the following transcoding schema (see Szigetvári 2008: 100):

[+anterior] [+coronal]		+/- tense		
<ɳ d>	[ð]	–	[+continuant] [+voice]	Puppel's C-Domain
<d>, <t> (<t'> occurs in very few cases)	[d] ([t])	–	[-continuant] [-voice]	Puppel's V-Domain

Incidentally, we may observe that, if we compare this schema with the source-filter model sketched by Stanisław Puppel (Puppel 1992), a phonological ‘trans-domain’ dichotomy emerges: the opposition between /ð/ and /T/. But if we merge the two allophonic variants encoded by <d> and <t>—by hypothesizing, for <d>, an actual (slightly) devoiced pronunciation: [ɖ]—the phonological opposition coincides with Puppel’s dichotomy.

Thus, we are now able to tabulate the occurrences of the lexeme *anday*:

l	n	ཎ	ɳ	d	(ɳ)	g	ཎ	l	[a ₁ nða ₁ χ] ⁹
l	n	ཎ	ɳ	d	Ø	g	ཎ	3	

Along with these two series, we observe also the following variants:

l	n	ཎ	Ø	d	Ø	g	ཎ	3	[a ₁ nda ₁ χ]
l	n	ཎ	Ø	t	Ø	g	ཎ	3	[a ₁ nta ₁ χ] ¹⁰

Since [ð], [ɖ] and [t] seem to occur stochastically within the very same environment, at first glance they all appear to be allophonic variants. See Kirchner: “noncontrastive features lack faithfulness constraints altogether” (2001: 85), i.e.: a noncontrastive feature is never preserved, at least consistently, in surface representation. Now:

⁹ We may recall that in Old Tibetan “all finals are pronounced as voiceless, despite being written as voiced” (Hill 2010: 123).

¹⁰ See von Gabain : *āntāh* M [= T II Y 3], l. 20 (1954: 85).

if, by hypothesis, such a phonological feature is [+continuant], one wonders why, in the aforementioned context, it is not *always* preserved.

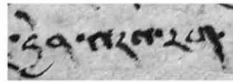
Here, a peculiar triggering of the phonetic imperative—insightfully named by Kirchner (2001: 85 § 2.2.) as LAZY: “Minimize articulatory effort”—takes place. The phenomenon is similar to that analyzed by Kirchner (2001: 88) within an Optimality Theory context. In fact, as already stressed by Johanson (2013: 177), we are in the presence of “an uncomfortable sequence of two continuants”. The allophonic variant [ɖ] ([t]) occurs as a result of a positional (conditioned, context-sensitive) faithfulness constraint violation, which outranks the general faithfulness constraint PRES(continuant), i.e. prevents, as a *more expensive* option, the preservation of the feature [+continuant] *in the presence of a sequence of two continuants*. We may call it LAZY_{2cont}:

/d/	LAZY _{2cont}	PRES(continuant)
d	*	
ᵛᵛ ḍ	**!	**!

According to Johanson: “Diese Erscheinung wäre als Assimilation im Sinne von Verlust des Merkmals [+frikativ] zu verstehen” (2013: 31). Regarding the allophone “[ḍ] als dominierende Variante”, see the detailed discussion in Johanson (1979: 32 § 5.3). In a sense, we may say that [ḍ] is *partially* “unanchored”, since there is no corresponding voiced stop (Cser 2003: 51 § 3.4.6).

See the following cross/dissimilating variants:

29: <ḍd(y)(e[↑])nḍḍaḍḍrgḍ> [ḍe₃nḍa₁ʔra₁χ]¹¹ *dendar* {+Ag}



(26), 30: <ḍ(o[↑])lḍḍd(y₁)nḍḍrḍ> [olḍ(e₃)nḍa₁r] *ol dendar*

Compare with the *non*-dissimilating occurrence 23:

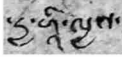
<ḍ(i[↑])ḍḍd(y[↑])(i^{↑→})mḍḍg(l₁)(ḍ₁)gḍ> [ḍiḍi₃mḍa₂χ] ‘provided with a tiara’—where <ḍ(i[↑])ḍḍd(y[↑])(i^{↑→})m> is a foreign word.

Because at least two graphemes encode for two distinct apico-alveolar [±voiced, +coronal, +anterior, -distributed] phonemes (i.e. /s/ and /z/), the allophone(s) denoted by <d> (<ḍ>) must be [-continuant]. Their somewhat retracted, definitely apico-

11 Regarding the *non-sublinear* post-vocalic occurrence of the grapheme <ḍ>, see 2.2.3. below.

alveolar character emerges clearly from the graphemic opposition between the strings <dg(l_l)> and <d(l_l)>:

3, 29: <ldēg(l_l)(a_l)gē>, [a_ld_la₂χ] *atlig*, versus 3: <d(y_l)(i_l)nēl(a_l)gē>, [d_li₃nl₂χ] *tnlig*;

7: <t(y_l)ēg(a_l)(i^l)ēl(y_l)āē>  [d₃xi₂la₃?] *tāgil* {-A} [CONV], *değil* {-A}.

The graphemic cluster <g(l_l)>—in Written Tibetan, <ག> is one of the six *silent* consonants to which <ལ> may be subjoined—which encodes for the articulation of a lateral approximant immediately adjacent to <d>, is opposed to <l>, which encodes for the articulation of a lateral approximant immediately adjacent to the alveolar nasal [n] (ཎ). Roughly speaking: the graphemic cluster <dg(l_l)> cannot encode for the consonant cluster [θl].

Compare 2: <l(i^l)ēč(i^l)nēadāē>, [i_lŋ₁nōa₁?]¹² *için* {+dA} with the dissimilating occurrences 26, 31: <lērgēdāē>, [a₁ra₁χd₁?] *arig* {+dA};

The apico-alveolar place feature of the allophone denoted by cluster <g(l_l)> is also evincible by occurrences such as 22: <l(u_l)ēgl(y_l)(u_l)sē> [u_lu₃s] *ulus*; see immediately below.

Similarly, in the aforementioned transcription of a Tibetan text in Uyghur script edited by Kara, the Tibetan clusters /bda/ [βd̪a], /bla/ [βla] (“an alveolar fricative mainly preceded by a labial one” (Kara 1978: 165)) is rendered as <uda>, <^ula>. Again, these data could be interpreted as reflecting the hyperphonetic nature of the transcription. For a Uyghur reader, the grapheme <w> would in fact have denoted the allophone [u], more akin to the voiced bilabial continuant [β] than to the high back rounded cardinal vowel /u/.

Thus, in the Old Turkic hyperphonetic system denoted by PT 1292, <l(u_l)ēg> = [u], *versus* <l(u_l)> = (until now [u_l]) = [u]:

22 <l(u_l)ēgl(y_l)(u_l)sē> [u_lu₃s] (a disharmonic vowel sequence!)

ulu

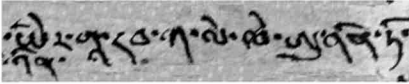
31: <l(u_l)ēgzāēt(i^l)ē>

uzat {+i}

31: <l(u_l)ēgz(u_l)nē> [uzun]

uzun

ün {-DI}

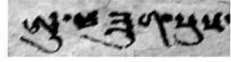
32: 

<y(e^l)r[k(i^l)n]ēg(a_l)ēdbēkēl(e^l)ē[[l(e^l)]]ē(u_l)ēn[[i^l)n]]ēt(i^l)ē>, *yerga tapqalı ünti*—my reading differs from that of Maue & Röhrborn (1984: 309): “‘u-nid-ti’”.¹³

12 As usual, morpheme #+dA# is opaque to rightward palatal vowel harmony; see Proverbio (2012: 209–211).

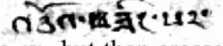
31: <l(u_l)z[[s]]z(u_l)gəz(u_l)s>

üzügsüz¹⁴



[uzuxsus]

This last example gives us an opportunity to illustrate a peculiar feature which emerges as a consequence of the hyperphonetic notation used by the scribe, the synchronic co-existence of two different gestures: tachysyllabication (quick syllabication) and bradysyllabication (slow, detached syllabication). What follows is our chain of reasoning:

At least twice (31: <l(u_l)z[[s]]z(u_l)gəz(u_l)s> and 2:  <ab(o[†])z[[s]]z(i[†])gəz(u_l)s>), the scribe initially wrote the grapheme <s>, but then crossed it out and subjoined the grapheme <z>. What happened? In both cases, he transcribed the words hyperphonetically: he firstly registered the issue of a tachysyllabic pronunciation, i.e. “la prononciation moyenne [...] la plus normale et naturelle”, but afterwards, with an “effort de réflexion et d’analyse phonématique” consequent to an “articulation phonique [...] lente” (Kasser [1982: 27]), he interpreted the previous utterance as an issue of a regressive assimilation:

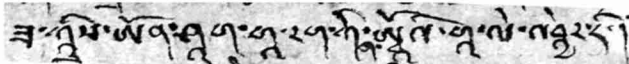


The compulsory strength of this process of autocorrection, as a consequence of bradysyllabication, is here proved by the fact that in the second case the scribe made a hypercorrection, since <z(i[†])gəz(u_l)s> *sansar* comes from Sanskrit: संसार *samsāra*. We must notice that in this position (onset of the first syllable), in Old Turkic as well as in Middle-Mongolian, there is no phonological opposition between [s] and [z]. But precisely in Middle-Mongolian we observe <zr> for *sara*, versus <sqi> for *saqi*- (Tumurtogoo & Cecegdari 2010: 168).

A detached syllabication is clearly implied by many of PT 1292’s transcriptions, such as the followings:

13 Erdal (personal communication) accurately observes that “As Moriyasu, you see *uninti* against M&R’s *umdti*. [But] *ün-* does not suit the context, since the person then remains standing on one leg for 7 days. Perhaps one should emend to *unitti* since, in Brāhmī, *t* and *n* are graphemically ambiguous (cp.see  *ni* / *ti*;  *no* / *to*).” In fact, this would have been theoretically possible only if we assume that the scribe transcribed a Brāhmī *Vorlage*.

14 See also *üç*, *üküş*, *üzä*, *üztün*.

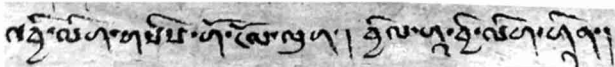
23: 

⟨zək(ɬ)(r_l)(i[†])səl(o[†])nəšəgəgərgək(i[†])(n_l)əl(w_l)(ɬ)(o[†])ɬ(i[†])gə(ɬ)əl(e[†])¹⁶əb(ɬ)(y_l)(e[†])rəd(i[†])əə⟩

According to Maue & Röhrborn: *säkiz on čag (čaq) karak* {+In} öy {-gAll} [CONV] *bér* {-dl} (1985: 72–73).

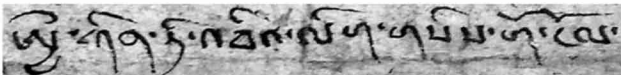
2	ɬ	B	(ɬ)	(y _l)	(e [†])	r	ə
1	Ø	B	Ø	(y _l)	(e [†])	r	ə

#bil-#: *biliglig* ‘wise, possessing knowledge’; *biligsiz* ‘ignorant’; *bilgä bilig* ‘wisdom’.

40: 

⟨əb(y_l)(i[†])əl(i[†])gəgə(i[†])səg(o[†])əŋ(o[†])ləl(u_l)gəəb(y_l)(i[†])ləg(ɬ)əb(y_l)(i[†])əl(i[†])gəg(ɬ)(i[†])n⟩,

[βi₃li₁χsi₁sko₁ŋo₁lɯχβi₃lɣa₂βi₃li₁χi₂n], *biligsiz köñülüg bilgä biligin*

8: 

⟨l(y_l)(i[†])ək(i[†])nət(i[†])əb(i[†])əl(i[†])gəgə(i[†])səg(o[†])əŋ(o[†])lə⟩, *ikinti biligsiz köñül*

8	ɬ	b	Ø	(i [†])	ɬ	ə	l	(i [†])	g	ə
40a	ɬ	b	(y _l)	(i [†])	Ø	ə	l	(i [†])	g	ə
40c	Ø	b	(y _l)	(i [†])	Ø	ə	l	(i [†])	g	ə

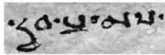
We can compare such occurrences with the testimonies of, on the one hand, Ms Mainz 329, on l. 5 (Maue: ⟨əb(y_l)(i[†])lək(y_l)əb(y_l)(i[†]) l(i[†])gəl(i[†])[g]⟩, [βi₃lka₃ βi₃li₁χli₁χ] (1996: 216–218); and, on the other hand, the orthographic variant exhibited by Ms Mainz 712, on l. 12 (Maue: ⟨b(y_l)(i[†])ləl(i[†])gə l(i[†])g⟩ (1996: 219–221). As already observed above, in this latter manuscript the grapheme ⟨ɬ⟩ never occurs in pre-consonantal position, thus denoting a graphemic system which does not disambiguate between [β] and [b] ([β]).

16 ⟨əl(w_l)(ɬ)(o[†])ɬ(i[†])ə⟩: Maue & Röhrborn (1984: 308): “‘yōhi: Ursprüngliches ⟨‘yō-⟩ zu ⟨‘ō-⟩ korrigiert? Falls ⟨‘yō-⟩, dann ungewöhnliche Anordnung der Grapheme: ⟨‘yhō-⟩ statt ⟨‘hyō-⟩”. At any rate, the grapheme ⟨(w_l)⟩ seems not to have not been detected (and, eventually, transcribed) by Maue & Röhrborn.

As far as PT 1292 is concerned, the only two examples of Turkic lexemes in which the grapheme <p> occurs actually exhibit the strings <bḡp>, which would represent the voiceless stop [p]:

26: 

<ybḡpārḡg(a₁)g> [ya₁pʔa₁rʔa₂χ] *yapırgak* (*yapür̥aq*);

42: 

<d(y₁)bḡp(r₁)ḡmḡ> [ḡa₃pra₁ma₁s] *täprä* {-mAz}, to be compared with 32: <dbḡkəl(e¹)ḡ> [ḡa₁ḡka₁le₁] *täp* {-gAlI}.

2.2.3. Dorsals

As far as the set of graphemes encoding for dorsal consonants is concerned, we would have expected to discover a graphemic opposition analogous to those identified for coronals and labials. In fact, we actually find out that the graphemic cluster *<ḡg> never occurs. As a possible explanation of such an apparent graphotactic inconsistency, we may recall that in the sub-dialectal phonemic system sketched in Proverbio (2014a: 146–147), dorsal consonants turn out to be underspecified for the feature [voice].¹⁷ Roughly speaking: a phonemic opposition is detectable only between a [+continuant] unvoiced dorsal archiphoneme and a [-continuant] unvoiced one (Proverbio 2014a: 144).

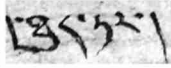
[+ dorsal]		+/- tense	
<g>	[x], [χ] (+front, +back allophonic variants), perhaps [ɣ] after a liquid sonorant	– (+)	[+continuant] *([–voice])
<k>	[k], [q]	+ +	[–continuant] *([–voice])

2.2.4.

The reversed grapheme <ḡ>, <k¹> occurs in two cases only, while the grapheme <ḡ>, <t¹> occurs five times, but only in the graphemic cluster <t¹(u₁)>. According to Hill: “[...] in contrast to Written Tibetan, aspiration in Old Tibetan is subphonemic, the simplex syllable initial of a word being aspirated and a simplex syllable initial within a word unaspirated” (2010: 117§ 3.1).

17 See footnote 5 above.

Thus, strings such as:

25, 26  $\langle t'(u_l)d\dot{e}tr\dot{e} \rangle$ [tuḍar], *tut* {-Ar};

14:  $\langle t'(u_l)d[[n]]\dot{e}s\dot{e} \rangle$ [tuḍsa] *tut* {-sA};

versus 13:  $\langle t'(u_l)d[[n]]\dot{e}m\dot{e}s\dot{e} \rangle$ [tuḍmasa] *tut* {mA} {-sA},

would at a minimum denote acoustic variants.

2.2.5. Vocalic system

In searching for a possible underlying adjacency constraint, let us observe the following distribution of occurrences:

2, 5, 6, 31, 34	$\langle \dot{a}b(o^{\uparrow})\dot{a}\dot{e} \rangle$, འཇའ་	<i>bu</i> , see Erdal & Schönig (1990)
14, 17, 18, 40	$\langle \dot{a}b(o^{\uparrow})\dot{e} \rangle$, འཇ་	

A preliminary remark: Even if we discarded the hypothesis according to which the subscribed (antevocalic) grapheme $\langle \dot{a} \rangle$ is phonemically meaningless—and therefore randomly distributed—we would nevertheless be compelled to observe that, in the aforementioned case, the graphemic opposition $\langle (o^{\uparrow})\dot{a} \rangle$ *versus* $\langle (o^{\uparrow}) \rangle$, which might be generally intended to represent (encode for) the opposition / $\bar{o}$ / *vs* / o / [$\pm$ length],¹⁸ appears to hold no phonological meaning as a semantic distinctive feature.

Let us now reconsider the opposition between the strings $\langle \dot{a}b(o^{\uparrow})\dot{a}\dot{e} \rangle$ and $\langle \dot{a}b(o^{\uparrow})\dot{e} \rangle$.

14: $\langle \dot{a}b(o^{\uparrow})\dot{e}l(o^{\uparrow})n\dot{e} \rangle$

18: $\langle \dot{a}b(o^{\uparrow})\dot{e}l(i^{\uparrow})s\dot{e} \rangle$

40: $\langle \dot{a}b(o^{\uparrow})\dot{e}l\dot{o}l\dot{e} \rangle$

17: $\langle \dot{a}b(o^{\uparrow})\dot{e}l\dot{o}\dot{e}ru\dot{e} \rangle$; we may assume that on ll. 5, 6, the very same string has been erroneously written as $\langle \dot{a}b(o^{\uparrow})\dot{a}\dot{e}l\dot{o}\dot{e}ru\dot{e} \rangle$.

¹⁸ Róna-Tas estimated that “The opposition of the long and the short vowels was not identical with the etymological shortness and length, it depends on prosodic reasons” (1991: 105). On the other hand, Coblin thought that: “[...] in O(ld) T(ibetan) [...] we also note that ‘*a-chung*’ was not normally or systematically used as a subscript to represent long vowels in transcriptions of Sanskrit [...]” (2002: 170). The same orthographic device is detectable throughout the text of the so-called Mongolian monuments in ḥP’ags-pa script, see Erdal (1973: 271).

See also 44: <ḏl(k)ḏ(oḏ)ḏl(oḏ)gḏ>.

On the other hand:

2: <ḏb(oḏ)ḏz[[ḡ]]z(iḏ)ḡḏ>
 31: <ḏb(oḏ)ḏb(eḏ)ḡḏ>
 34: <ḏb(oḏ)ḏg(oḏ)ḡḏ>
 See also 8: <ḏb(iḏ)ḏl(iḏ)gḏ>

The following adjacency constraint (5) seems to emerge:

If a certain syllable exhibits a vocalic onset, a possibly occurring vocalic coda in the preceding syllable turns out to be unmarked in respect to a certain feature marked by the grapheme <ḏ> [-feature]. On the contrary, if a certain syllable exhibits an (*n*-) consonant onset, a possibly occurring vocalic coda in the preceding syllable turns out to be marked in respect to the aforementioned feature [+feature].

$$\begin{array}{ll} (3) \rightarrow \sigma_{n-m-1}^{vc} (\langle \text{ḏb}(\text{o}^\uparrow) \rangle) / \sigma_{n-m}^{vo} [= C_A] & \$\langle \text{ḏb}(\text{o}^\uparrow) \rangle \emptyset \emptyset \$ \\ (4) \rightarrow \sigma_{n-m-1}^{vc} (\langle \text{ḏb}(\text{o}^\uparrow) \rangle) / \sigma_{n-m}^{co} [= C_B] & \$\langle \text{ḏb}(\text{o}^\uparrow) \rangle \emptyset \$ \end{array}$$

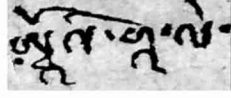
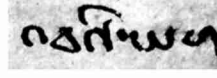
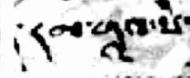
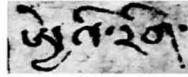
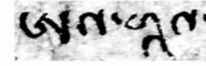
If we took into account the apparent violations of constraint (3), we would be compelled to admit that $\neg(C_A \cap C_B = \emptyset)$; in other words, the opposition [-feature] vs [+feature] would seem to be neutralized in favor of [+feature].

But what is such a feature?

2.2.5.1.

Consider the opposition between <ḏ(oḏ)lḡ> རྩལ་ (12 occurrences) and <l(oḏ)lḡ> རྩལ་ (4 occurrences) *ol*, in light of Hill's view: "The letter *q*- [i.e., <l>] has already been shown to represent vocalic onset. Old Tibetan *is unlikely* [italics mine] to use both *q*- and *v*- [i.e. <ḏ>] to represent vocalic onset, and indeed much evidence points to the pronunciation of a simple initial *v*- as [ɣ-]" (2005: 113). In fact, as already advocated by Hill (2009)—though partially retracted in Hill (2010: 115–116)—the grapheme <ḏ> in *non-sublinear* antevocalic position—more precisely, when occurring before a grapheme which encodes for a [+sonorant] segment, thus including sequences such as <ḏr> and <ḏḡ>—would represent [ɣ], or better the approximant [ʷ], as well as the simple glottal stop [ʔ].¹⁹ Now let us analyze the following strings:

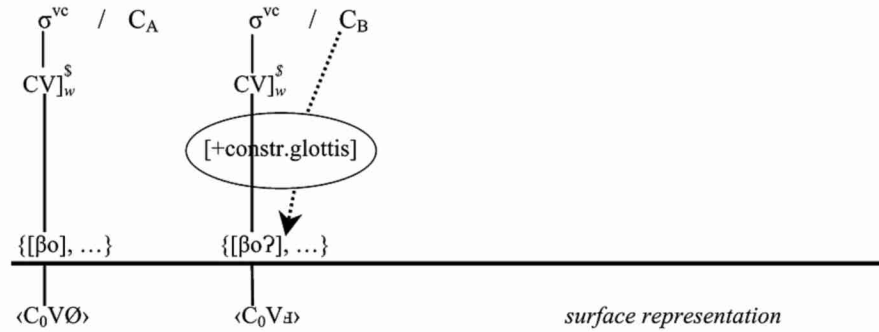
19 As was already recognized by Bernhard Karlgren regarding the ancient Chinese texts in ḥP'ags-pa transcriptions, see Ligeti: "Dans les transcriptions 'phags-pa du chinois, à l'initiale, le 'a-*čun* figure tout régulièrement. Conformément à la restitution de M. B. Karlgren, il fallait attribuer à ce signe la valeur phonétique du *glottal stop*" (1961: 229). On this topic, see Coblin (2007: 45–49), particularly: "In Karlgren's 'Ancient Chinese' system, syllables written with the 'Phags-pa letter were supposed to have a glottal stop initial" (2007: 45); and "Since our task in the present study has been to arrive at a pho-

23: $\langle \text{el}(y_1)(\text{a}_1)(\text{o}^\dagger)\text{el}(\text{i}^\dagger)\text{eg}(\text{a}_1)\text{el}(\text{e}^\dagger) \rangle^{20}$ ([o₄u₁i₁xa₂le₁], [o₄ʔi₁xa₂le₁])22: $\langle \text{aba}(\text{i}^\dagger)\text{eyg}\text{e} \rangle$ [βa₁u₁i₁ya₁χ]25: $\langle \text{dmeg}(\text{a}_1)\text{des}(\text{e}^\dagger)\text{e} \rangle$ [ɖmxa₂ʔse₁] *tamga*
{+sI}12: $\langle \text{l}(y_1)(\text{e}^\dagger)\text{el}(\text{i}^\dagger)\text{eg}(\text{a}_1)\text{g}\text{e} \rangle^{21}$ [e₃u₁i₁ri₁χ] *äyrig*7: $\langle \text{laeg}(\text{a}_1)\text{a}\text{e} \rangle$ [a₁ʔχa₂ʔ] *ağ {-A}*

[CONV]

see $\langle \text{ybepareg}(\text{a}_1)\text{g} \rangle$,[ya₁ɸʔa₁rya₂χ]

All the evidence appears to indicate that *non-sublinear* post-vocalic occurrences of the grapheme $\langle \text{a} \rangle$ also encode for a phoneme denoting, among other things, the feature [+constr. glottis]. We may now infer the following rule (6):



As a further step, we may extend the adjacency constraint (5) by including the case in which $\sigma_{n-m-1}^{vc} = \sigma_n$, i.e. a final syllable marking a caesura, or end of an intonational phrase (whose punctuational closure is *šad*): 4: $\langle \text{el}(y_1)(\text{o}^\dagger)\text{el}\text{e} \rangle$, [ölta]²² *öl* {+dA} (Context A [C_A]); *versus* 2: $\langle \text{l}(i^\dagger)\text{el}(\text{i}^\dagger)\text{n}\text{e}\text{ad}\text{e} \rangle$, [iɸindaʔ] *için* {+dA} ($\sigma_{n-m-1}^{vc} = \sigma_n$).

netic interpretation rather than a strict phonemic one, we can consider the job done at this point and interpret [*a-chun*] a [h]" (2007: 48).

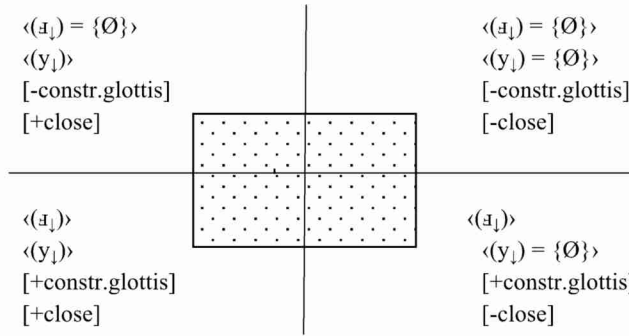
20 See *supra*, note 16.

21 Maue & Röhrborn (1984: 308): 'ye_{hi}-rig; Moriyasu (1985: 7): 'ye'i rig.

22 See note 9.

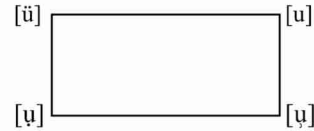
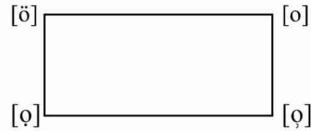
2.2.5.2.

We have begun reasoning about a special case—the complementary distribution of $\$a_{\text{bo}}\$$ and $\$a_{\text{bo}}\$$ —in which a σ^{vc} in fact coincides with a monosyllabic morpheme. Now we may generalize the local correlation between the feature [+constr.glottis] and the grapheme $\langle a \rangle$, by passing all its occurrences in post-vocalic (sequential and sub-linear) positions—not taking into account Sanskrit words or foreign proper names—through the sieve of the following diagram, which encompasses the co-occurrences of two graphemic oppositions: $\langle a_{\downarrow} \rangle$ versus $\emptyset$, and $\langle y_{\downarrow} \rangle$ versus $\emptyset$:



As a result, we can put forward a preliminary sketch of the vowel system according to the observed hyperphonetic transcription denoted by PT 1292:

$\langle o^{\uparrow} \rangle$	imputed (asymptotic) phonetic value = [o]
$\langle a_{\downarrow} \rangle (o^{\uparrow})$	imputed (asymptotic) phonetic value = [ɔ] ([ɔ])
$\langle y_{\downarrow} \rangle (o^{\uparrow})$	imputed (asymptotic) phonetic value = [ö] ([œ])
$\langle w_{\downarrow} \rangle (a_{\downarrow}) (o^{\uparrow})$	imputed (asymptotic) phonetic value = [ɔ] ([œ])

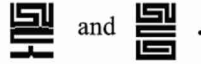


$\langle u_{\downarrow} \rangle g$	= [u]	$\langle C_0 \emptyset \rangle$	= [a]
$\langle a_{\downarrow} \rangle (u_{\downarrow})$	= [ɯ]	$\langle C_0 a_{\downarrow} \rangle$	= [ä] ([ɐ])
[v]		$\langle y_{\downarrow} \rangle \emptyset$	= [ä] ([æ])
$\langle y_{\downarrow} \rangle (u_{\downarrow})$	= [ü]	(probably) $\langle l g \rangle$	= [ä]:
[ɯ]		according to Maue & Röhrborn (1984: 308)	
$\langle u_{\downarrow} \rangle$	= [ɯ]	the graphemic sequence 12: $\langle l g z(u_{\downarrow}) g \rangle$ is to be	
		regarded as a scribal error: “‘a-[[g]]zug’”). In fact,	
$\langle e^{\uparrow} \rangle$	= [e]	$\langle l g z(u_{\downarrow}) g \rangle$ <i>äzüg</i> should be read as [äzü] versus	
$\langle a_{\downarrow} \rangle (e^{\uparrow})$	= [ɛ]	14: $\langle l g z g \rangle$ [aza] <i>azak</i> .	

⟨[ɛ]⟩	
⟨(y _l)(e [↑])⟩	= [ɛ̃]
⟨[ɜ]⟩	
⟨(ɜ _l)(y _l)(e [↑])⟩	= [ɜ̃]
⟨[ə]⟩	
⟨(i [↑])⟩ =	= [i]
⟨(ɜ _l)(i [↑])⟩ =	= [ĩ]
⟨(y [↑])(i [↑]), (y [↑])(i ^{↑→})⟩ =	= [ĩ]
⟨[Y]⟩	
⟨(i ^{↑→})⟩ =	= [ĩ]
⟨[ĩ]⟩	

as already observed by Joseph Hackin, see Miller (1966: 142).

We may notice that the graphemic strings ⟨l(y_l)(o[↑])⟩ and ⟨l(y_l)(u[↑])⟩ are sequentially homologous to the following Middle Mongolian strings, written in the (Tibetan-derived) ḥP'ags-pa script:²³



2.3. Issues of an acoustic-hyperphonetic transcription

We are now able to determine some of the main factual issues of such an acoustic-hyperphonetic transcription. First, we can note that different gestures of an individual utterance segment may be transcribed differently, as a consequence of different acoustic “impressions”. The comparison between different transcriptions of the very same acoustic segment turns out to be very insightful. Let us consider the example of the lexeme *almir* ‘greed’. It occurs three times:

I	8: ⟨lɛl(y _l)(i [↑])mɛm(i [↑])rɛ⟩	[alimir]
Ii	38: ⟨lɛl(i [↑])mɛm(i [↑])rɛ⟩	[alimir]
Iii	13: ⟨lɛm(i [↑])rɛ⟩	[almir]

Whether or not the second occurrence might be considered as merely defective variant of the first one or not, it seems clear that the first and the third transcriptions denote a different *degree of bradysyllabication*: the epenthetic vowel [ĩ]—inserted after the sonorant liquid /l/ (in fact, the velarized allophone [ɬ])—emerges as an acoustically audible sound in consequence of a detached syllabication. This

23 As far as the ḥP'ags-pa script is concerned, notwithstanding the many recent studies dealing with it, see, among others, Coblin 2007: 1–67—the best introductory tool remains Nakano (1971: 7–58).

reasoning remains valid even if, according to Erdal, we regard the third occurrence as a secondary, “syncopated form”.

As far as the second transcription is concerned, below we will immediately see that it has to be discarded since it is “defective”, in the sense that the graphemic string is simply not well-formed according to the following RDMM constraint (regular disharmony-triggered morphemic marking: see Proverbio (2014b): the nucleus of syllable σ_n must be disharmonic with respect to the Head vowel—or the Head vowel must not be zero-marked:

	Head vowel	σ_n nucleus
38: <ḷḡḷ(i [†])mḡm(i [†])rḡ>	[i]	[i]

Instead, the following couple of transcriptions represent truly acoustic variants, perfectly normal in respect to the aforementioned RDMM constraint:

3, 29: <ḷdḡg(l _↓)(ḡ _↓)gḡ>	[adḷḡḡ]
32: <ḷdḡg(l _↓)(y _↓)gḡ>	[adḷḡḡ]

In some cases, we might believe ourselves to have detected truly erroneous transcriptions, such as: <ḷḡr(e[†])gḡ>, [areḡ] (Maue & Röhrborn: “<e> lapsus stili?” (1984: 307, note c)) *versus* 14: <ḷḡrgḡ> *arig* (arīḡ). Actually, the question is a bit more complicated than it appears. Though the lexeme *arīḡ* may be seriated with *allīḡ* and *balīḡ*, as a consequence of the present acoustic-hyperphonetic approach, we observe in fact the following “acoustic variants” of the same disharmonic archiphoneme:

[areḡ]	[adḷḡḡ]	[adḷḡḡ]	[baḷḡḡ] ²⁴
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24 Marcel Erdal suggested the idea that such “acoustic variants” as [baḷḡḡ] or [adḷḡḡ] would represent an attempt to encode for a [-high], [-low], [-front], [-back] vowel ([ə]), according to a previous statement of his own (Erdal 2004: 92): “In contiguity with /g r l/, what we would expect to be /i/ is quite often spelled with alef (e.g. amal ‘spiritual peace’, *tat-ag* ‘taste’, *bar-amlg* ‘well to do’, *yaran* ‘tomorrow’ or *+lag* for *+lXg*)”. Such an observation is perfectly sound. But Erdal (2004: 58) already observed that “most of the writing systems used for writing Old Turkic do not have a special character for [i] and generally use for it the same character as for [i]. There is, however, one alphabet [...] with which a distinction does appear to be made”. It is precisely the Tibetan alphabet: we have already shown (§2.2.5.2.) that the TP 1292 writing system distinguishes among [i], [i], [i] and [i].

2.4. RDMM constraint

According to the aforementioned local RDMM constraint, disharmonic vowels appear either to be underspecified for the ATR feature in respect to the Head vowels, or to exhibit an ATR shift:

[-constr.glottis] [+close][ä]	[-constr.glottis] [a][-close]
[+constr.glottis][ä] [+close]	[ä][+constr.glottis] [-close]

In terms of an Optimality Theory constraint:

(5) IDENTITY INPUT-OUTPUT [-constr] $\wedge$ IDENTITY INPUT-OUTPUT [-close]: corresponding input-output segments must have the same specification for the feature [-constr] OR for the feature [-close].

Moreover, either disharmonic vowels properly mark the rightward morphemic boundary of a PW (C_A), or they mark the opaqueness of a monosyllabic affix to rightward harmony (C_B):

C_A		Head vowel [INPUT]	Disharmonic vowel [OUTPUT]
3, 29: <ldəg(l ₁)(ə ₁)gə> <i>atlıg</i>	[aɫɫəχ]	[a]	[ä]
20: <ləəb(ə ₁)gə> <i>abıg</i>	[aβəχ]		
27: <lnəəd(ə ₁)gə> <i>andak</i>	[anəəχ]		
29: <ləd(ə ₁)gək(i ¹)nə> <i>adak</i> {+In}	[aɫə ^h kin]		
25: <dməg(ə ₁)əş(e ¹)> <i>tamga</i> {+sI}	[ɟamχəʔse]		
26: <yəpəpəg(ə ₁)gə>	[yapʔaryəχ]		
12: <zrəş(ə ₁)gə> <i>sarsig</i> (<i>sarsiy</i>)	[zarsəχ]		
22: <bəl(y ₁)gə> <i>balık</i> (<i>balıq</i>)	[bəläχ]	[a]	[ä]
25: <yərl(y ₁)gəg(ə ₁)(i ¹)nə> <i>yarlıg</i> {+In}	[yarläχin]		
42: <d(y ₁)bəp(r ₁)əmş> <i>täprä</i> {-mAz}	[ɟäpramas]	[ä]	[a]
18: <d(y ₁)əşəş(i ¹ →)əş(i ¹)şə> <i>täşäş</i> {+I} {+sIz}	[ɟäşəşis]		
35: <g(ə ₁)əşəgə> <i>kaçıg</i> (<i>qaciy</i>)	[χəʃəχ]	[ä]	[a]
23: <gəşəşəş(i ¹)(n ₁)ə> <i>karak</i> {+In},	[χəra ^h kin]		

to be compared with 44:

⟨d(i[↑])nəl(g_↓)(i[↑])gə⟩ *tinlig* {+I_g},
[dɪnlaχiχ] *versus* 19: ⟨d(i[↑])nəl(a_↓)gə⟩
[dɪnlaχ].

C_B

7: ⟨l_↓əg(a_↓)əə⟩ *ag* {-A} [conv]

[aʔχaʔ]

[a]

[ə]

29: ⟨əd(y_↓)(e[↑])nədaərgə⟩

[dɛndəraχ]

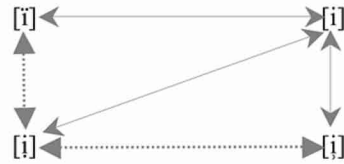
[ə]

[a]

Regarding the [+high; -low] vowel series, at least within the C_B context, we are compelled to consider a more restricted formulation of constraint (5), since it appears that:

*INPUT-OUTPUT [+constr] ∧ * INPUT-OUTPUT [+close]

(6) corresponding input-output segments which have the same specification for the feature [+constr], OR for the feature [+close], are prohibited.



C_A

23: ⟨ad(i[↑])əad(y_↓)(i[↑])məg(l_↓)(a_↓)gə⟩ *‘provided with a tiara’*

[d̥iðimlax]

[i]

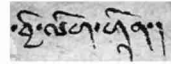
[i]

40: ⟨b(y_↓)(i[↑])əl(i[↑])gəg(a_↓)(i[↑])nə⟩

[b̥ilixin]

[i]

[i]



40: ⟨ab(y_↓)(i[↑])əl(i[↑])gəgə(i[↑])sə⟩

[βiliχsis]

[i]

[i]

⟨l(y_↓)(i[↑])ək(i[↑])nət(i[↑])ə⟩ *‘ikinti’*, *versus* 16, 19:

[ikinti]

[i]

[i]

⟨l(i[↑])ək(i[↑])nət(i[↑])⟩

C_B

18: ⟨d(y_↓)ŋəŋəš(i[↑])əš(i[↑])sə⟩ *tāŋāš* {+I} {+sIz}

[d̥aŋaʃis]

[i]

[i]

10: ⟨d(i[↑])əl(i[↑])nə⟩ *til* {+In}

[d̥ilin]

[i]

[i]

40: ⟨b(y_↓)(i[↑])əl(i[↑])gəg(a_↓)(i[↑])nə⟩ *bilig* {+In}

[b̥ilixin]

[i]

[i]

Apparently, we encountered only one case that violates the RDMM constraint:

10: ⟨g(a_↓)əm(a_↓)gə⟩ [χamaχ].

2.5. Alternating consonants

Consider the following paradigms

kaçıg		35: <g(ɛ̞)ççgç>	[χaʃfaχ]
andak		27: <lnɛɛd(ɛ̞)gç>	[anɔaχ]
adək	+In	29: <ɫɛd(ɛ̞)gçk(i̞)nç>	[aɖa ^h kin]
karak	+In	23: <gɛçrgçk(i̞)(n)ç>	[χara ^h kin]
tinliç		19: <d(i̞)nçl(ɛ̞)gç>	[ɖinlaχ]
	+Ig	44: <d(i̞)nçl(g)l(i̞)gç>, 36, 43: <b(y)l(i̞)çl(i̞)gç>	[ɖinlaχiχ]
bilig		40: <b(y)l(i̞)çl(i̞)gçg(ɛ̞)(i̞)nç>	[b̥iliχin]
yarlıç	+In	25: <yrl(y)gçg(ɛ̞)(i̞)nç>	[yarläχin]

To begin with, we might remind ourselves of a plain statement such as “in Turkish, laryngeal contrasts are either preserved or neutralized, in an *apparently unpredictable pattern* [italics mine]” (Gouskova 2012: 117).

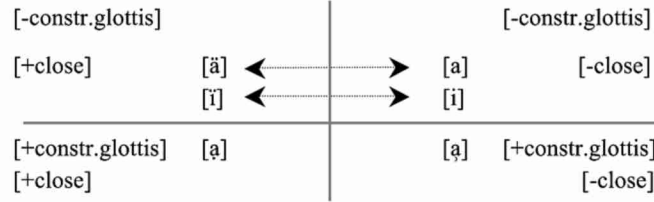
If we were to describe such “alternating vs. nonalternating” behavior not “in terms of underlying representations [...] but rather in terms of lexically specific constraint ranking” (Becker & Ketrez & Nevins 2011: 110), we would be compelled to adopt the conflicting ranking analysis exploited by Becker and Ketrez and Nevins:

- a. *VCV(change into stop) is a markedness constraint which requires a shift from [+continuant] to [stop].
- b. IDENT[+continuant] is a faithfulness constraint which requires the preservation of feature [+continuant].
- c. [aɖaχ] {+In} → [aɖa^hkin] requires *VCV(change into stop) >> IDENT[+cont]
- d. [b̥iliχ] {+In} → [b̥iliχin] requires IDENT[+cont] >> *VCV (change into stop)

We would submit to the reader a slightly more in-depth analysis. In fact, what we actually observe may be summarized in the following terms:

Within the limited extent of the aforementioned lexical paradigms, consonant C_n ($\rightarrow C_{n-1}$), as a result of the affixation process, may shift from fricative to stop, or preserve the feature [+continuant].

Let us recall here a representation of the vocalic space divided in four quadrants:



Now, we may proceed to compare the sequence of vocalic features observed in the input (the lexical items prior to the affixation process) with the sequence observed in the output:

	Input		Output	
	V ₁	V ₂	V ₁	V ₂
[aḡa ^h kin]	[-constr.][-close]	[+constr.][-close]	[=]	[=]
[χara ^h kin]	[+constr.][-close]	[-constr.][-close]	[=]	[=]
[ḡinlaχiχ]	[-constr.][-close]	[+constr.][-close]	=	[-constr.][-close]
[ḡiliχin]	[-constr.][+close]	[-constr.][-close]	=	=
[yarläχin]	[-constr.][-close]	[-constr.][+close]	[=]	[=]

In terms of an Optimality Theoretical analysis, we obtain the following scheme:

PRES[in-out] is a faithfulness constraint which requires the sequence of vocalic features to be preserved in the output (i.e.: after affixation).

ID[-close] is a markedness constraint which requires both V₁ and V₂ to exhibit feature [-close].

ID[-constr.] is a markedness constraint which requires both V₁ and V₂ to exhibit feature [-constr.].

SHIFT is a markedness constraint which requires C_n (→ C_{n-1} in the output) to shift from [+continuant] to [stop].

PRES[+cont] is a faithfulness constraint which requires that C_n (→ C_{n-1} in the output) must preserve feature [+continuant].

	PRES[in-out]	ID[-close]	ID[-constr.]	SHIFT	PRES[+cont.]
[aḡa ^h kin]	*	*		*	
[χara ^h kin]	*	*		*	
[ḡinlaχiχ]	!	*			*
[ḡiliχin]	*		*		*
[yarläχin]	*		*		*

Roughly speaking: if ID[-close], then [χ] → [k]; if ID[-constr.], then [χ] → [χ].

For a variety of reasons, we must exclude the lexeme *tinlig* ([ṭinlaχ]) from the aforementioned paradigms. Firstly, its output derives from a different affixation process. Secondly, it does not comply with PRES[in-out], as all the other lexical items do.

3. Conclusions

Let us summarize the previous discussions in the following assessment:

PT 1292 exhibits a fairly consistent (quasi-)hyperphonetic transcription system.

Within this system, the grapheme *a-chui*, when occurring in pre-consonant position, discriminates between Puppel's feature domains ([+continuant], [+voice] versus [-continuant], [-voice]).

The Old Turkic dialect denoted by PT 1292 is characterized by a bidimensional phonological system of obstruents, which appears to be underspecified for the feature [voice]:

	[+ dorsal]	[+ labial]	[+coronal]
[+continuant]	/Ḥ/	/β/	/Ḍ/
[-continuant]	/K/	/P/	/T/

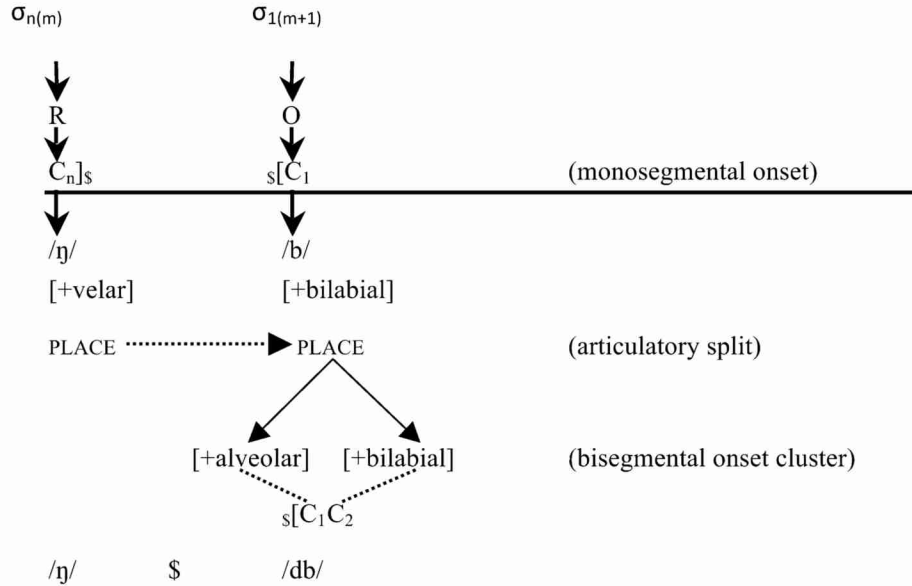
4. Excursus

On l. 23 of PT 1292, we observe the string <db>,²⁵ which occurs as a syllable-onset cluster. The comprehensive comment by Maue and Röhrborn is not so illuminating: “Daneben finden sich noch antekonsonantisches <d-> und postkonsonantisches <-r->. Für <d-> gibt es 2 Belege: <dbis.kā-le> und <dmyiñ>. Es sei daran erinnert, daß ein solches <d-> auch im Tib.—das Khams ausgenommen—in der Aussprache unberücksichtigt bleibt” (1984: 305). Róna-Tas made two different remarks which result in a contradiction:

Róna-Tas: “The *voiced* character is indicated in a very few cases with a prescribed *d-* [in fact, an antekonsonantic *d-* occurs only twice, i.e. in the two aforementioned cases] -as in *dbyis-ka-le* = *bič yali*”) (1991: 101); *versus* “The curious transcription of *miñ* ‘thousand’ as *dmyiñ* is a Tibetan orthographical feature [...] The transcription *dm-* points to a kind of *unvoiced m-*” (1991: 104).

We would propose, at least for the first occurrence of the string <db>, a different explanation. Such a phenomenon may be interpreted as a case of “insertion of an intermediate articulation”, in order to perform a smoother contour-segment. For a variety of reasons (for example, problems in the discrimination between certain “non-native” sounds), the contiguity between “distant” gestures has been perceived as articulatorily difficult (see Lass (1984: 184) for a more abstract motivation):

25 Perfectly normal in Old Tibetan, at least until the 10th century; see Che (1990: 83–85).



Now, such a peculiar outcome—a speech misperception originating from a segmental contiguity between a velar and a bilabial gesture (and visually represented by a sequence of two Tibetan graphemes)—is not only far from being an isolated case, but it also seems to extend its roots into the neurological foundations of language. See Kuhl: “One of the most compelling examples of the polymodal nature of speech representations is auditory-visual illusions that result when discrepant information is sent to two separate modalities. One such illusion occurs when auditory information for /b/ is combined with visual information for /g/ [...] Perceivers report the phenomenal *impression of an* intermediate articulation (/da/ or /tha/) [the italics are mine] [...] This is a very robust phenomenon [...]” (1999: 109b–110a). Diachronic linguistics supplies us with many examples of such auditory illusions which arise from the perception of a non-native sound pattern:

Example of articulatory shift: Diachronic shifting of cluster [ɣʈ] → [wδ] (Tenišev (1984: 202); Johanson (2013: 179)).

Old Turkic *tay* ‘mountain’ → Tatar, Kazakh, Bashkir, Karakalpak [taw].²⁶ In Bashkir, the plural form *[tawlar] has further developed into [tawδar].

Example of articulatory split: Diachronic shifting of cluster [sʈ] → [sdʌ] (Verlinden 1942):

26 As a result of a phonetic process well illustrated in Károly (2012: 7).



⟨Ḑ⟩ = ⟨˙⟩ the intersyllabic dot (*cheg*)
 ⟨Ḑ⟩ ⟨ḑ⟩ (*šad*)
 ⟨Ḓ⟩ = ⟨Ḑ⟩ (*a-chen*)
 ⟨Ḕ⟩ = ⟨Ḑ⟩ (*a-chuñ*)²⁷
 ⟨Ḓ(ḑ)⟩ = ⟨Ḑ⟩ (*a-chen* + subscript *a-chuñ*)
 ⟨Ḓ(w)⟩ = ⟨Ḑ⟩ (*a-chen* + subscript *wa-zur*)
 ⟨Ḓ(ḑ)⟩ = ⟨Ḑ⟩ (*a-chen* + superscript *i*)
 ⟨Ḓ(ḑ)⟩ = ⟨Ḑ⟩, the reversed *i-graph* (*a-chen* + superscript rightward *i*)
 ⟨Ḕ⟩ = ⟨Ḑ⟩

σ^{vo} = a syllable with vocalic onset
 σ^{co} = a syllable with an (n-)consonant onset

27 See Róna-Tas (1991: 100–101).

σ^{vc} = a syllable with vocalic coda

σ^{cc} = a syllable with an (n-)consonant coda

$C_A; C_B, \dots$ = Context A; Context B, etc.

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Relators of comparison in Karaim and in Kazakh as spoken in China

Éva Á. Csató & Aynur Abish

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The paper deals with comparative constructions in Karaim as compared to Kazakh as spoken in China. It is demonstrated that through contact-induced changes highly endangered languages may become more complex than their more vigorous large cognates.

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The aim of this article

The aim of this article is to study how comparative constructions are coded in the moribund West Kipchak Turkic language Karaim.¹ Another much more vigorous Kipchak language, Kazakh, will serve as a standard of comparison. Endangered languages are often claimed to be structurally less elaborate and morphologically less complex than large vigorous languages. In several articles, we have argued that the Karaim morphological system is still complex and exhibits, for instance, the typical Turkic categories in the field of modality (Csató 2012). Here, a review of the basic types of comparative constructions in Karaim will illustrate that this exceedingly small language employs an extended set of construction types in order to express comparison. Compared to Kazakh, Karaim constructions show great variation owing to the fact that the language has partly preserved the typical Turkic types and partly introduced new ones as a result of contact with non-Turkic languages.

The constructions of comparison will be described with respect to what relators they employ for marking the predicate and the nominal phrases representing Comparee and Standard NPs. Bound and free relators will be distinguished. Furthermore, we will distinguish between preposed and postposed free relators, i.e. those preceding and those following their complement.

1 We thank Irina Nevskaya for her valuable comments on a previous version of this paper.

Degree of grammaticalization

Johanson (in print) deals with the grammaticalization of nominal relators in Kazakh, suggesting a new kind of systematic classification that distinguishes between various degrees of grammaticalization. The highest level of grammaticalization is represented by case relators. The old opaque postpositional relators represent the second degree of grammaticalization followed by less grammaticalized and complex relators. In the following presentation of the Karaim comparative relators, we will refer to these degrees of grammaticalization.

Comparative constructions. Some basic typological distinctions

Comparative constructions typically consist of two noun phrases (NP) and a predicate. One of the noun phrases serves as the standard of comparison, NP^{stand}, and the other as the object of comparison, the comparee, NP^{comp}. Semantically, comparisons of inequality, equality and similarity can be distinguished (Stassen 2001: 993). Though role phrases are not comparatives, we also include them in this description because their coding can be similar to that of the comparative constructions. Comparative constructions of inequality and equality are illustrated here with English examples.

- (1) English comparison of inequality

<i>Mary</i>	<i>is old-er</i>	/	<i>more beautiful</i>
NP ^{comp}	BOUND COMPARATIVE RELATOR.ER	/	FREE COMPARATIVE RELATOR
<i>than</i>			<i>Judy.</i>
FREE COMPARATIVE RELATOR.THAN			NP ^{stand}

- (2) English comparison of equality

<i>Mary</i>	<i>is as</i>	<i>beautiful</i>
NP ^{comp}	FREE COMPARATIVE RELATOR.AS	
<i>as</i>		<i>Judy.</i>
FREE COMPARATIVE RELATOR.AS		NP ^{stand}

In (1) and (2), the NPs^{stand} are introduced by the free comparative relators *than* and *as*, respectively. The predicates are construed differently. In comparisons of inequality, the predicative adjective is in the comparative form, whereas in comparisons of equality, the predicate is introduced by the relator *as*. In the equality construction the predicate is also marked by the free relator *as*. Thus, in both constructions, both the predicate and the NPs^{stand} are marked by a relator.

In comparative constructions expressing inequality, either the standard of comparison may be assigned a fixed case, or the case corresponds to that assigned to the NP_{comp} (Stassen 2001: 994). Turkic languages typically represent the first type and apply an adverbial case, the ablative, to NP_{s^{stand}}. The predicate is optionally marked by the free relator *daha* ‘more’ in Turkish. See below for more about the type in which the standard NP gets its case from the comparee.

- (3) Turkish comparison of inequality

Ali Meryem’-den (daha)
 NP^{comp} NP^{stand}-BOUND RELATOR.ABL FREE COMPARATIVE RELATOR.MORE
büyük.
 old
 ‘Ali is older than Meryem.’

In Kazakh, the predicate in comparisons of inequality may optionally be marked by a bound relator, i.e. the comparative suffix $\{-L^3A^2w\}$ or $\{-(I^2)rA^2K^2\}$, as in the following example; see Zhang (2004: 111–113). The NP^{stand} is marked with a bound relator, the ablative case suffix.

- (4) Kazakh comparison of inequality

Adıl Märyäm-nän aқıldi /
 NP^{comp} NP^{stand}-BOUND RELATOR.ABL intelligent
aқıldi-law / kışi-rek.
 intelligent-BOUND COMPARATIVE RELATOR.LAW / small-BOUND COMPARATIVE RELATOR.RAK
 ‘Adıl is more intelligent / more intelligent / smaller than Meryem.’

Another type of comparative construction expresses similarity; see (5). Example (6) illustrates the similar coding of role phrases.

- (5) English comparison of similarity

Robert sings like a nightingale.
 NP^{comp} FREE SIMILARITY RELATOR.AS NP^{stand}

- (6) English role phrase

He works as an engineer.
 X FREE ROLE RELATOR.AS NP^{role}

The most frequently used Kazakh comparative constructions are illustrated by examples (7–9). In equative type of constructions, the relator *birdey* ‘equally’, based on the numeral *bir* ‘one’ and the simulative suffix {-D²A²y}, is frequently used following the NP^{stand}, which is marked by {-M³A²n}, the suffixed form of the postposition ‘with’.

- (7) Kazakh comparison of equality

Men Märyäm-men birdey aқıldi-mın.
 NP^{comp} NP^{stand}-BOUND RELATOR.WITH FREE RELATOR intelligent-COP1SG
 ‘I am as intelligent as Meryem.’

In constructions of similarity, the simulative suffix {-D²A²y} marks the NP^{stand} itself.

- (8) Kazakh comparison of similarity

Adıl bulbul-day sayra-y-dı.
 NP^{comp} NP^{stand}-BOUND SIMILATIVE RELATOR.DAY sing-PRES-COP3SG
 ‘Adil sings like a nightingale.’

- (9) *Gül-dey jäyná!*

flower- BOUND SIMILATIVE RELATOR.DAY bloom.IMP2SG
 ‘May you bloom like a flower!’

Similarity constructions can also be built with postposed free relators. The postpositions serving as relators in such constructions are *siyaқtı* ‘like, similar’ ← *siyaқ* ‘appearance, image’, *siқıldi* ‘like, similar’ ← *siқil* ‘color’, *seқıldi* ‘like, similar’ ← *seқil* ‘form’, *älpetti* ‘like, similar’ ← *älpet* ‘appearance’.

- (10) *қar siyaқtı /*
 NP^{stand} snow FREE SIMILATIVE RELATOR.AS
bala siқıldi /
 NP^{stand} child FREE SIMILATIVE RELATOR.AS
kün seқıldi /
 NP^{stand} sun FREE SIMILATIVE RELATOR.AS
adam älpetti
 NP^{stand} man FREE SIMILATIVE RELATOR.AS
 ‘as snow / as a kid / as the sun / as a man’

In Kazakh, role phrases are based on *bolup* ‘being’, the converb form of the copula *bol-* ‘to become, be’. Zhang describes *bolup* used in this function as a structural particle (2004: 692).

- (11) Kazakh role phrase

<i>Adıl</i>	<i>enžener</i>	<i>bol-up</i>	<i>žumus iste-y-dı.</i>
Adıl	NP ^{role} engineer	FREE ROLE RELATOR.BOLUP	work-PRES-COP3SG

‘Adıl works as an engineer.’

Karaim relators of comparison

Karaim comparisons of inequality

Karaim still employs the Turkic type of construction to express comparison of inequality by marking the NP^{stand} with a bound relator, the ablative suffix, and the predicate with the comparative suffix {-R²A²K²}.

- (12) Trakai Karaim proverb

<i>Bügün-hüi</i>	<i>čipčä</i>	<i>yaxşı-raχ</i>
today-ACC	chicken	good-BOUND COMPARATIVE RELATOR.RAK
<i>tanda-yi</i>	<i>tavux-tan.</i>	
tomorrow-KI	NP ^{stand} hen-BOUND RELATOR.ABL	

‘A chicken today is better than a hen tomorrow.’

This construction, however, occurs less frequently than corresponding ones with free relators; for more about these see below. The use of the comparative suffix seems to be obligatory.

The similitive suffix

The first opaque postposition dealt with by Johanson (in print) is a highly grammaticalized bound relator which goes back to the East Old Turkic postposition *tä:g* ‘like’. In Kazakh, this old postposition is employed as a suffix {-D²A²y}. Zhang considers it to be a case marker (2004: 78–81). In Karaim, the suffix is found in the form H. {-diy}, T. {-d’i(y)}, but its occurrence is restricted to the following pronominal forms: H. *buñd’iy* [bunɟij] ‘such’ and H. *anıd’iy* [anɟij] ‘such’ (Musaev 1964: 177) and also T. *neñd’iy* [n’en’d’ij] ‘what a’. Zajączkowski (1932) does not mention this suffix. Deny et al. (1959) denote this suffix ‘équatif, comparatif’. According to Pritsak, for instance, South Siberian Altay Turkic has a ‘casus comparativus’ {-DIy} (1959: 583) and Khakas an ‘Äquativ’ {-DIy}. In the Karaim pronominal forms, the suffix is non-harmonic, always front. The change *ä* > *i* could take place in Karaim, in which low vowels preceding a [j] are raised in certain suf-

fixes. In Halich Karaim, this change may result in an *i*, e.g. *ket-fî-yd'i-m* < *ket-sä-yd'i-m* ‘had I left’ (Csató & Johanson 2015).

The Karaim pronouns *buñd'iy*, *and'iy*, and *neñd'iy* function as pronominal adjectives and do not play any role in building comparative constructions of any type. Thus, the suffix {-d'iy} no longer functions as a relator but serves instead as a derivational suffix. These adjectival pronouns may be inflected, e.g. in number and case, like other nominal categories, or they can serve as complements of a postposition. See the following examples (according to Olach 2013).

- (13) Halich Karaim biblical text

Kiñi et-me-y-d'i *an-d'iy-lär-ñi*
 envy-NEG-PRES-3SG that-DER-PL-ACC
kaysi-lar-i *kayt-ma-y-d'ilar*
 which-PL-POSS3 return-NEG-PRES-3PL
 ‘X does not envy those who do not return.’

- (14) Halich Karaim biblical text

Buñ-d'iy *išt'inä* *män* *bay-a-män*.
 this-DER POSTPOSITION.ON I look-PRES-1SG
 ‘I look at such things.’

The opaque postposition *kibik* ‘like’

One of the postpositions used in similitive expressions—as in Turkic languages belonging to the southwestern branch—is *kibik* ‘like, as’ in both variants of Karaim.

- (15) Trakai Karaim comparison of similarity

arslan *kibik*
 NP^{stand} lion FREE SIMILATIVE RELATOR.AS
 ‘as a lion’

The relator *kibik* assigns the genitive case to pronouns just as the corresponding postpositions do in other Turkic languages.

- (16) Trakai Karaim comparison of similarity

an-în *kibik*
 PRONOUN^{stand}X-GEN FREE SIMILATIVE RELATOR.AS
 ‘as X’

The following example illustrates the use of a similative construction in a sentence.

- (17) Trakai Karaim comparison of similarity

<i>mān</i>	<i>mači</i>	<i>kibik</i>
NP ^{comp} I	NP ^{stand} cat	FREE SIMILATIVE RELATOR.AS
<i>ayač</i>	<i>üšnü</i>	<i>miñ-äl-mim.</i>
tree	POSTPOSITION.ON	climb-POTENTIAL-NEGATION.PRES1SG
'I cannot climb on trees like a cat'.		

Kibik is used as a postposition, as, for instance, Turkish *gibi*. In Karaim, it has developed new syntactic properties. *Kibik* 'like, as' in Karaim functions as a comparative particle. Thus, the NP^{stand} derives its case from the NP^{comp}. In the following two examples, the NPs^{comp} *meñimki bayča-m-ni* [my garden-POSS1SG-ACC] 'my garden' and *ačuvun* [anger-POSS3SG-ACC] 'X's anger' are both assigned the accusative case by the verbs *saban šürdü* 'X ploughed' and *töktü* 'X poured'. The NPs^{stand}, *baxča-si-n* [own garden-POSS3-ACC] 'own garden' and *ot-nu* [fire-ACC] 'fire' derive their case from the NPs^{comp} (Csató 2001).

- (18) Trakai Karaim

<i>Dost-um</i>		
friend-POSS1SG		
<i>meñ-im-ki</i>	<i>bayča-m-ni</i>	
NP ^{comp} [I-GEN-KI	garden-POSS1SG-ACC]	
<i>öz</i>	<i>bayča-si-n</i>	<i>kibik</i>
NP ^{stand} [own	garden-POSS3-ACC]	FREE SIMILATIVE RELATOR.AS
<i>saban šür-dü.</i>		
plough-PAST.3SG		
'My friend ploughed my garden just like (he ploughs) his own.'		

- (19) Trakai Karaim

<i>İök-tü</i>	<i>ot-nu</i>	<i>kibik</i>
pour-past3	NP ^{stand} fire-ACC	FREE SIMILATIVE RELATOR.AS
<i>ačuv-u-n.</i>		
NP ^{comp} anger-POSS3-ACC		
'X poured his anger like fire.'		

With regard to its syntactic position, i.e. the fact that it follows the noun phrase, *kibik* still behaves as a postposition. However, as the above examples illustrate, the construction NP + *kibik* is in this case different despite the fact that *kibik* itself can assign case to pronominal complements; see (16). These mixed syntactic properties of this relator make it especially interesting from a contact-linguistic point of view.

The opaque relator *moro* ‘like, as if’, a global copy of Polish *miara* ‘measure’, is used as a preposed particle in Karaim.

- Pronouns following the particle are in the nominative. Compare this to the case-assigning property of *kibik*, as in (15).

- The relator $\chi az / \chi as$ 'like, the same way, similarly' can be used in the same sense as *moro* 'as, like, as if' and may even modify *moro* to express 'just like'. We assume that χas is a colloquial and further grammaticalized variant of the relator *kiyas / kiyasa* to be presented below. The following examples of its usage are quoted from Baskakov et al. (1974).

- | | | | |
|------|----------------------------|----------------------------|------------------|
| (23) | Trakai Karaim | | |
| | <i>χas</i> | <i>eriñčäk</i> | <i>ešäk</i> |
| | FREE SIMILATIVE RELATOR.AS | <i>lazy</i> | <i>donkey</i> |
| | ‘like a lazy donkey’ | | |
| (24) | Trakai Karaim | | |
| | <i>χas</i> | <i>moro</i> | <i>plastirni</i> |
| | FREE SIMILATIVE RELATOR.AS | FREE SIMILATIVE RELATOR.AS | <i>plastic</i> |
| | ‘just like plastic’ | | |

Less grammaticalized relators

The Trakai Karaim relator T. *kīyas* [also occurring as *kīyas*] and its Halich Karaim form *kīyasa* [also *kīyasa*] are copies from Persian/Arabic. The form ⟨*kīyasen*⟩ is used in Turkish in the meaning ‘by comparison, by analogy [with]’. In Uyghur, the form *kīyasā* is used as a relator meaning ‘as, like’. The meaning of this relator is ‘by comparison, like’. As mentioned above, this relator is used in the contracted forms *χaz* / *χas* in the spoken language. This is also confirmed by the distribution of *kīyas* and *χaz* / *χas*. The full and the short form are in complementary distribution. Whereas *kīyas* and *kīyasa* are frequently used in the biblical texts, the short forms occur only in the spoken language. The full form of this relator is semantically more transparent than the contracted form.

(25) Trakai Karaim biblical translation

Ķi kūn da ķečā avurlan-dī üštū-m-ā
 because day and night become.heavy-PAST3SG upon-POSS1SG-DAT
kudrat-iy,
 omnipotence of God-POSS2SG
buzul-du yašarmay-īm;
 decay-PAST3SG youth-POSS1SG
kīyasa kurχaχlīy-īn-da yaz-nīn
 FREE SIMILATIVE RELATOR.AS dryness-POSS3-LOCATIVE summer-GEN
 ‘For your omnipotence is upon me day and night, my youth has decayed, as in the dry-
 ness of the summer.’
 Firkovičius 1998: 46–47.

The interrogative relator of comparison

The interrogative pronoun *nečik* ‘how’ functions in Karaim as a comparative relator. As a result of selective copying from Slavic languages, interrogative pronouns are also used as subjunctors in embedded clauses. Thus, in the following examples, *nečik* ‘how’ is employed as a functional equivalent of the Russian relator *kak* ‘how’ as a subjunctor (26) and as a comparative relator (27).

(26) Trakai Karaim literary language

Da ayt, nečik šūv-ā-m an-ī.
 and say.IMP2SG how love-PRES-1SG X-ACC
 ‘And tell (X) how I love X.’

When functioning as a comparative relator, the interrogative pronoun *nečik* ‘how’ precedes the NP^{stand}. The predicative adjective is assigned the comparative suffix.

- Yaḫšī-raḫ* *öz* *ñečik*
good- BOUND COMPARATIVE RELATOR.RAK own FREE SIMILATIVE RELATOR.HOW
köp *da* *yat-nün.*
many and alien-GEN
'It is better (to have) less of one's own than more of others.'

(28) Trakai Karaim spoken language

- Nečik* *anda* *bar-t,* *aley*
FREE SIMILATIVE RELATOR.HOW there COP.BAR-3SG FREE SIMILATIVE RELATOR.SO
bar-t.
COP.BAR-3SG
'It is just as it is.'

To express role phrases, some languages use constructions of the comparative type; see, for instance, the English example (6). In Karaim, a non-Turkic pattern has been copied. This implies that the predicative noun denoting the role is in the instrumental case. Karaim employs $\{-B^2A^2\}$, the suffixed form of the postposition meaning 'with', in this function.

- İşle-y-t'* *ürat'uvçu-bä.*
work-PRES-3SG teacher-BOUND ROLE RELATOR.WITH
'X works as a teacher.'

- İslā-d'i* *ürā'ā'ivcū-bā.*
work-PRES-3SG teacher-BOUND ROLE RELATOR.WITH
'X worked as a teacher.'

Compared to Kazakh, Karaim comparative constructions display features that can be explained as selective and global copies from non-Turkic contact languages. The old bound relator {-DIy} is no longer used as a comparative relator in similitive constructions. The old postposition *kibik* 'like' is in use, but its syntactic properties

have been influenced by selectively copied combinational properties of contact languages. The old global copy *kiyasa* ‘as’, which goes back to Arabic, has been further grammaticalized and become an opaque free relator in the form *χas*. Its use and combinational features have been reinforced by corresponding comparative relators of contact languages, for example, of *moro* ‘as’, which has been globally copied from Polish. The Turkic pattern of marking role phrases has been replaced by case assigning.

Table. Types of comparative constructions

Constructions	English	Turkish	Kazakh	Karaim
<i>Inequality relators</i>				
Predicate	bound <i>or</i> preposed free: <i>more</i>	none <i>or</i> preposed free: <i>daha</i>	none <i>or</i> bound relators: {-L ³ A ² w} {-(I ²)rA ² κ ² }	none <i>or</i> bound relator: {-R ² A ² κ ² }
NP ^{stand}	preposed free: <i>than</i>	bound: abla- tive case	bound: ablative case	bound: ablative case <i>or</i> preposed free: <i>ñečik</i>
<i>Equality relators</i>				
Predicate	preposed free: <i>as</i>	none	none	none <i>or</i> preposed free: <i>aley</i> , etc
NP ^{stand}	preposed free: <i>as</i>	postposed free: <i>gibi</i> , <i>ka-</i> <i>dar</i>	bound: {-M ³ A ² n} and free postposed: <i>bırdey</i>	postposed free: <i>ķibik</i> or preposed free: <i>ñečik</i> , <i>kiyasa</i> , <i>χas</i> , <i>moro</i>
<i>Role phrase relator</i>				
NP ^{role}	preposed free: <i>as</i>	postposed free: <i>olarak</i>	postposed free: <i>bolup</i>	bound: {-B ² A ² }

Similitive relators

Predicate	none	none	none	none
NP ^{stand}	preposed	postposed	bound: {-D ² A ² y}	postposed free:
	free: <i>like</i>	free: <i>gibi</i> , <i>kadar</i>	postposed free: <i>siyaḳti</i> , <i>siḳildi</i> , <i>seḳildi</i> , <i>âlpetti</i>	<i>ḱibik</i> <i>or</i> preposed free: <i>ḱiyasa</i> , <i>ḡas</i> , <i>moro</i>

The frequency of the various comparative constructions in Karaim has been influenced by the frequency of corresponding constructions in contact languages. Thus, for instance, in comparisons of inequality the NP^{stand} is less frequently marked by a bound than a free relator.

Notations

Graphic forms are given in angle brackets of the type < >

Morphophonemic transcriptions are given in curly brackets of the type { }

Phonetic transcriptions are given in square brackets of the type []

← means ‘is derived from’; < means ‘has developed from’

Abbreviations

ACC	accusative	NP ^{comp}	comparee
COP	copula	NEG	negation
DAT	dative	PL	plural
DER	derivation	POSS	possessive
GEN	genitive	PRES	present
H.	Halich Karaim	SG	singular
NP ^{stand}	standard of comparison	T.	Trakai Karaim
		X	he, she, it

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The Gagauz female marker *-(y)ka*

Astrid Menz

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This article deals with the global copy of a bound morpheme in Gagauz. The feminine marker *-(y)ka*, copied from Slavic, is used to build female forms of denominations for persons.

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1. Introduction

In both varieties of Gagauz,¹ Bulgarian and Moldovan, traces of the linguistic influence of the surrounding Slavic languages are easily observable, in particular in lexicon and syntax.² The morphology is much less affected. Most morphological changes can mainly be labeled frequency changes; i.e. only the frequency of occurrence of a certain suffix decreases or increases. They are entailed by changes on the syntactical level.

In what follows, I will concentrate on the rare case of global copying of a bound morpheme. Gagauz features that developed as a result of contact with the surrounding languages are explained in the framework of Johanson's Code-Copying model; see Johanson (2002).

2. Gender marking

According to Doleschal (2015: 1159), “gender marking is a way of explicitly signaling that a linguistic expression refers to a male or female being (person or animal)”. In contrast to words that are semantically gender-specific, those derived expressions bear a special marker signaling gender. This marking for gender can be achieved

1 Gagauz is a Turkic variety that is very close to Turkish. Linguistically it can be regarded as a Turkish dialect. It has been spoken for an unknown length of time (probably some 600 years) in Bulgaria in surroundings where Bulgarian and Turkish are dominant languages in different domains. Due to the migration some 200 years ago of a large group of people from Bulgaria into territory that today belongs to the Republic of Moldova, the majority of the Gagauz today live in a linguistic environment that was and is dominated by Russian. In Moldova, the Gagauz are at present the only Turkic speaking minority. Neighboring languages are Rumanian and Bulgarian, but the most prominent a second or sometimes first language among the Gagauz is Russian.

2 For a detailed analysis of syntactic changes, see Menz (1999).

either by syntactical means, in the form of adjective phrases or appositions, or by word-formation, either compounding or affixation (Doleschal 2015: 1159). In Turkic languages in general all these various means except affixation are employed; see below.

3. Expressions for female gender in Turkic languages

Turkic languages have no grammatical gender. They also do not make use of derivational suffixes marking gender. To refer explicitly to the sex of a person, several strategies are therefore utilized.³ The most frequent ones, exemplified here with examples from Turkish, are the following:

1. Some lexemes denote either a female or a male person; i.e. their semantics denotes a certain sex. This is especially common with kinship terms, for obvious reasons. To this category also belong lexemes with inherent gender like *kadın* ‘woman’, *erkek* ‘male’, *oğlan* ‘boy’, *bayan* ‘lady’, *hanım* ‘mistress’, *bey* ‘mister’, *bay* ‘sir’ etc.
2. Gender terms like *bayan* ‘lady’, *kız* ‘girl’, *kadın* ‘woman’ are attributed to a head noun as in *kadın şoför* ‘woman driver’ ‘female driver’ or *erkek hemşire* ‘male nurse (f.)’ ‘male nurse’.⁴
3. With nouns that denote nationality, a lexeme inherently referring to a female person like *kadın* ‘woman’ or *kız* ‘girl’ is used as the head of a compound, as in *Alman kadını* (German woman-POSS3) ‘female German’ or *Türk kızı* (Turk girl-POSS3) ‘Turkish girl’.
4. Globally copied lexemes that include feminine suffixes of the original languages, e.g. *memure* ‘female clerk’ ← Arabic, *dansöz* ‘female dancer’ ← French, *kraliçe* ‘queen’ ← Slavic can be employed. I call this strategy “pseudo-morphological” because the suffixes in question are not borrowed as such and generally cannot be attached to nouns of Turkish origin or other languages than their own.⁵ Words belonging to this category could consequently also be understood as instances of strategy (1), i.e. special words reserved to denote females of a certain occupation.

Some Turkic varieties, however, under the influence of dominant Slavic languages, copied a gender marking suffix to derive female forms of nouns denoting persons.

3 For a detailed analysis of the various strategies to mark gender in Turkish; see Braun (2000).

4 Note that explicit gender marking is much more common for female than for male persons; see Braun (1997: 270–272).

5 One of the reviewers drew my attention to the Turkish word *tanrıça* ‘goddess’, the sole exception to this rule, see Lewis (1985: 25).

4. Global copying of bound morphemes: Derivation of feminine lexemes

Due to global copying of words of Arabic, Russian or French origin, we sporadically find derived female forms of lexemes denoting male persons, like Turkish *dansöz* ‘female dancer’ ⇐ French *danseuse* ‘dancer (f.)’. These are copied as a whole, the Arabic, Russian or French derivational suffixes not being productive in the Turkic varieties; see under 3 above. So far I have come across a feminine marker in Turkic languages that is not just a part of a globally copied lexeme but actually derives new words in Gagauz and in the Turkish dialects of Macedonia—both Western Oghuz varieties—as well as in Karaim, a Kipchak Turkic variety.

All Slavic contact languages serving as the source for copying for these Turkic varieties provide at least two different suffixes to derive female forms of nouns.

While Gagauz employs only one morpheme *-(y)ka* to derive feminine lexical forms, Macedonian Turkish dialects and Karaim both have copied two suffixes each. Macedonian Turkish has a suffix *-ka* and a suffix *-isa* (see Friedman 2003), Karaim has *-Ka* and *-CA* (see Csató in print). According to Musaev (1964: 122–123), *-Ka* in Karaim is used to derive female forms of nationality denotations, occupations and even animals, while the latter suffix *-CA* is more common in poetic style.

5. The Gagauz feminine marker *-(y)ka*

In Gagauz, in contrast to the above mentioned strategy of employing copied terms containing feminine suffixes that themselves are not productive in Turkish, we find a productive derivational marker in *-(y)ka*. This marker serves to derive explicitly feminine forms of lexemes denoting persons. It derives lexemes denoting female persons from terms for nationalities, geographic origin, professions and some kinship terms (see Pokrovskaja 1973: 622). The last category, together with some words that refer to female persons with particular physical or character attributes, needs special attention; see below.

The marker *-(y)ka* is the only bound marker copied into Gagauz. In principle, it can be attached to words of any linguistic origin including etymologically Turkic ones.

Alongside globally copied nominals denoting female persons, like *nemka* ‘German (f.)’ ⇐ Russian *немка* or *solistka* ‘soloist (f.)’ ⇐ Russian *солистка*, one finds e.g. a number of feminine forms derived from genuine Turkic gender neutral nouns like *saacı-yka* ‘female milker’ ⇐ *saacı* ‘milker’ (possibly contracted from *sa:-ıcı*). In fact, the highest productivity is seen with female forms of professions, especially among those formed with the denominal suffix *-CI* or the deverbal suffix *-(y)CI*; see Appendix A.

5.1. Morphological features of *-(y)ka*

Words derived with the marker *-(y)ka* are present in the Gagauz variety of Bulgaria (Zajaczkowski 1966: 18) as well as in the modern language of Moldova (Doerfer

1959: 268; Pokrovskaja 1973: 622). Thus, I assume that this marker originally came into the language via globally copied words from Bulgarian⁶ and was conventionalized early on. The fact that the suffix is present in both Bulgarian and Russian may have further contributed to its spread as a copied bound element in Gagauz.

Like its Bulgarian model, the suffix is not accentable (see Scatton 1993: 221); pitch accent is regularly on the antecedent syllable. The same also applies for the corresponding Russian marker *-ka*. With some globally copied stems that have pitch accent on other than the last syllable we find different patterns that are basically the same as in the language of origin, like *déver-ka* (26) ‘bridesmaid’ ← *dever* ‘bride’s attendant, brother-in-law’ ← Bulgarian *dešep* and *kalüger-ka* (25) ‘nun’ ← *kaluger* ‘monk’ ← *kalüger*. Both stems are of Bulgarian origin. The pair *kaluger/kalugerka* does exist in Bulgarian, but I am not aware of a female counterpart of *dever*, at least not in the standard language lexicon. This word also underwent a change of meaning in Gagauz.⁷

One striking difference between the Gagauz suffix and its Slavic models is the fact that if it attaches to a stem ending in a vowel the suffix starts with a “buffer” consonant *y*.

Some of the suffixes in Turkic languages have allomorphs that start with a consonant after stem-final vowels and with a vowel after stem-final consonants; see Johanson (2006: 34). An example from Gagauz would be the possessive suffix of the third person singular *-(s)I*, the attachment of which results in e.g. *burnu-su* ‘her nose’, but *göz-ü* ‘her eye’. With *-(y)ka*, however, the situation is exactly the opposite. The suffix starts with a consonant after a stem-final consonant and with the palatal glide *y* after a vowel, yielding forms like the above-mentioned *saacı-yka* (stem-final vowel) or *dever-ka* (stem-final consonant).

The initial palatal glide *y* is used with some suffixes and especially with enclitics in Turkic languages—and thus also in Gagauz—after stem final vowels, e.g. *ev-de-yken* ‘while at home’. After stem-final consonants, these enclitics start with a vowel, e.g. *gelmiş-ken* ‘since she came’. These enclitics, just like the Gagauz female marker, are not accentable. The fact that the female marker is not accentable might have triggered the development of an otherwise unexplainable and morphonologically redundant additional palatal glide at the suffix border after stem-final vowels.

The Turkish dialects of Macedonia treat the feminine marker *-ka* differently. In this variety, it always starts with the plosive and a possible preceding vowel is dropped. Friedman (2003: 59) gives the example *çingen-ka* ‘gipsy (f.)’, derived from the neutral form *çingene* ‘gipsy’.⁸ As Macedonian Turkish has also copied other suffixes to derive feminine nouns, I do not at this time have more examples of the suf-

6 Pokrovskaja (1973: 622) and Özkan (1996: 107) are of the same opinion.

7 Macedonian has a female counterpart of *dever* ‘bride’s attendant’ → *deverisa* ‘bridesmaid’.

8 Friedman does not indicate stress.

fix *-ka* after stems ending in vowels. With the suffix *-Ci*, the female form seems always to be *-iſa* resulting in *-Ciſa*; i.e. the stem-final vowel is dropped e.g. *yogur-citſa* ← *yogurtçu* ‘yoghurt-seller’; see Friedman (2003: 59).

Another feature that distinguishes *-(y)ka* from genuine Turkic derivational suffixes of the Gagauz language is the fact that it does not observe vowel harmony. This is also true for *-ka* in Macedonian Turkish and *-Ka* in Karaim respectively.

5.2. Function of *-(y)ka*

The vast majority of examples I have come across so far are derivations of lexemes derived by the suffixes *-CI* and *-(y)lci* forming terms for professions; see Table A in the Appendix. As is common in the other Turkic languages, in Gagauz these are grammatically neutral and can in principle be used to refer to either female or male persons. Thus, a word like *resimci* ‘painter’ can refer to both a female and a male painter. Only if the speaker wants to emphasize the fact that the person referred to is female might she employ *-(y)ka* to derive the feminine form *resimciyka* ‘painter (f.)’. Non-derived lexemes that inherently denote professions or occupations can also form female counterparts with this suffix; see Table B in the Appendix. Equally common and productive are derivations from nationalities, ethnicity or geographic origin; see Table C in the Appendix. Another field is the derivation of family names and family nicknames for the female members of the family, like *Ivanovka* or *Kolsuzka* ‘female member of the family with the nickname *Kolsuz*’.⁹

Derivatives from adjectives that denote physical or character attributes are not very numerous; see D in the Appendix. According to Viktor Kopuşçu, a native speaker of Gagauz, the female forms denoting negative character attributes *yalancıyka* ‘liar’, *aldadıcıyka* ‘cheater’ and *kapıcıyka* ‘thief’ can be used in child language to refer to both female and male persons.

Of special interest are the few kinship terms for several reasons. The first is that the two terms for sister-in-law are derived from words that inherently denote a female person, *baldız* ‘wife’s sister’ and *elti* ‘husband’s brother’s wife’. I suppose that both words are re-borrowed from a non-Turkic language or possibly another Turkish dialect. There are some arguments for this. First, most of the Gagauz kinship terms are of Slavic/Bulgarian origin, including the most important ones, like mother, father etc. That means that kinship terms of Turkic origin are almost all replaced by globally copied terms, at least when used to address the relative in question. Terms with a Turkic etymology like *ana* ‘mother’ and *ata* ‘father, forefather’ are not used when addressing or referring to an actual relative. They rather refer to the concept in a more abstract way, e.g. in compounds like *ana dil* ‘mother tongue’. Second, the Turkic word *baldız* has been copied into the Bulgarian standard language, where it is

9 I owe this information as well as the examples to Viktor Kopuşçu, a graduate student of Turcology at Istanbul University. He is himself a native speaker of Gagauz. He also provided me with some additional examples that are tagged with © in the Appendix.

integrated with a feminine agreement suffix *-a*, *балдыза*. The lexeme also exists in the Turkish dialects of Macedonia, in the same form as in Gagauz, namely *baldiska*. Third, *baldız* and *elti* are inherently feminine in the same way as *kari* ‘woman’ or *kız* ‘girl’ etc. Thus, they should not need an additional ending in Gagauz. My final argument is that the form *yeltika* ‘sister-in-law, husband’s brother’s wife’ does not show a glide after the stem *yelti* as is the rule for the suffix *-(y)ka* attached to stems ending in vowels in Gagauz. I thus assume that the form *yeltika* is copied as a whole, as one word. The source for copying, however, is unfortunately not known to me yet.

Because *-(y)ka* attaches at the right boundary of a stem, it is easily adapted into Gagauz. Suffixes of this type have some attractive features (see Johanson 2002: 44–48) that may have contributed to their copying.¹⁰ The relationship between form and semantics is easily recognizable, the morpheme boundary is clear, and the morpheme has only two variants. It is monofunctional in that it derives female forms from words denoting nationality, occupation and the like.

Note, however, that the suffix *-(y)ka* derives female forms from originally gender neutral lexemes. As a Turkic language, Gagauz has no grammatical gender category; a speaker is therefore not obliged to use the female forms, even if the indicated person is female. In Gagauz, one can thus refer to a female milker either with the neutral term *saacı* or with the female form *saacıyka*, or can choose to refer to a Moldovan girl as either *Moldavanka* or *Moldovan kızı*. An exception to this, however, is the pair of kinship terms *baldiska* and *yeltika*.

6. Conclusion

Gagauz, as well as some other Turkic varieties, copied a derivational suffix to form feminine forms of nouns referring to persons. The use of such a feminine form is not obligatory. Even if the speaker wants to emphasize the fact that she is speaking about a female person, there are other means available in the language.

The Gagauz bound morpheme *-(y)ka* can be regarded as morphonologically not deeply integrated into Gagauz. In many respects, it behaves more like a clitic than like a suffix because it (a) is not accentable, while all genuine Turkic derivational suffixes are, (b) does not undergo any vowel harmonic changes, unlike almost all other derivational suffixes, and (c) developed a redundant glide after stems ending in a vowel.

¹⁰ The Turkic denominal derivational suffix *-CI*, which Doerfer (1975: 332–333) calls an “Allerweltssuffix” ‘run-of-the-mill suffix’, for example, has been copied into a number of non-Turkic languages.

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Abbreviations

←	derived from
⇐	copied from
arab.	Arabic
bulg.	Bulgarian
f.	feminine
rus.	Russian
tur.	Turkic
rum.	Rumanian

Appendix

A. Profession or occupation derived with <i>-CI</i> or <i>-(y)ICI</i>			
female form	neutral form	source	translation
<i>buzacı-yka</i>	← <i>buza-cı</i>		shepherdess (of calves)
<i>çorbacı-yka</i>	← <i>çorba-cı</i>		boss, owner of inn f.
<i>resimci-yka</i>	← <i>resim-ci</i>		painter f.
<i>domuzcu-yka</i>	← <i>domuz-cu</i>		pig farmer f.
<i>kilimci-yka</i>	← <i>kilim-ci</i>		carpet weaver f.
<i>taukçu-yka</i>	← <i>tauk-çu</i>		chicken farmer f.
<i>işçi-yka</i>	← <i>iş-çi</i>		worker f.
<i>toplayıcı-yka</i>	← <i>topla-yıcı</i>		harvester f.
<i>saacı-yka</i>	← <i>saa-cı</i>		milker f.
<i>kolhozçu-yka</i>	← <i>kolhoz-çu</i>	← rus. колхоз	kolkhoznik f
<i>kodoşçu-yka</i>	← <i>kodoş-çu</i>	← rum. <i>kudos</i>	pander, pimp f.
<i>aşçı-yka</i>	← <i>aş-çı</i>		cook f.
<i>üüredici-yka</i>	← <i>üüred-ici</i>		teacher f.
<i>büüücü-yka</i>	← <i>büü-cü</i>		wizard f.
<i>ayırdıcı-yka</i>	← <i>ayırd-ıcı</i>		trouble-maker f.
<i>izmetçi-yka</i>	← <i>izmet-çi</i>		servant f.
<i>böcekçi-yka</i> ©	← <i>böcek-çi</i>		sericulturist f.
<i>ilaççı-yka</i> ©	← <i>ilaç-çı</i>		healer, quack f.

B. Underived words for profession or occupation			
female form	neutral form	source	translation
<i>saabi-yka</i>	← <i>saabi</i>	⇐ arab. <i>şāḥib</i> ¹¹	owner f.
<i>padişah-ka</i>	← <i>padişah</i>		queen
<i>hacı-yka</i>	← <i>hacı</i>		pilgrim f.
<i>komşu-yka</i>	← <i>komşu</i>		neighbor f.

¹¹ Arabic/Persian sources are only given when the Gagauz form is not easily recognizable.

<i>kafadar-ka</i>	← <i>kafadar</i>		friend f.
<i>aaret-ka</i>	← <i>aaret</i>	⇐ arab. <i>āḥira</i>	adopted sister
<i>kaluger-ka</i>	← <i>kaluger</i>	⇐ bulg. <i>калугер/калугерка</i>	nun
<i>dever-ka</i>	← <i>dever</i>	⇐ bulg. <i>девер</i> “brother-in-law”	bridesmaid
<i>akuşer-ka</i>	← <i>akuşer</i>	⇐ rus. <i>акушёр/акушёрка</i>	midwife
<i>vrač-ka</i>		⇐ rus. <i>врач</i> m. (f. = <i>женщина врач</i>)	doctor f.
<i>solist-ka</i>	← <i>solist</i>	⇐ rus. <i>солист/солистка</i>	solist f.
<i>terzi-yka</i>	← <i>terzi</i>		tailor f.

C. Nationality, ethnicity, geographical origin			
female form	neutral form	source	translation
<i>romin-ka</i> ~	← <i>romin</i> ~	rus. <i>румынка/румын</i>	Romanian woman
<i>rumun-ka</i>	← <i>rumun</i>		
<i>bulgar-ka</i>	← <i>bulgar</i>		Bulgarian woman
<i>turçan-ka</i>	<i>turok</i>	⇐ rus. <i>турчанка/тукрок</i>	Turkish woman
<i>tukan-ka</i>	← <i>tukan</i>		Bulgarian woman
<i>moldovan-ka</i>	← <i>moldovan</i>		Moldovan woman
<i>altay-ka</i>	≠ <i>altaylı</i>	⇐ rus. <i>алтайка/алтаец</i>	woman from the Altai region
<i>çingenä-yka</i>	← <i>çingenä</i>		gypsy f.
<i>Karakaçan-ka</i>	← <i>Karakaçan</i>		Karakaçan woman
<i>rus-ka</i>		← rus. <i>руска</i>	Russian woman
<i>gagauz-ka</i>	← <i>gagauz</i>	rus. <i>гагаўзка</i>	Gagauz woman
<i>tatar-ka</i>	← <i>tatar</i>		Tatar f.
<i>Beşalmalyka</i>	← <i>Beşalmalı</i>		woman from Beşalma

D. Physical or character attributes			
female form	neutral form		translation
<i>genç-ka</i>	← <i>genç</i>		young girl
<i>gözäl-ka</i>	← <i>gözäl</i> ¹²		beautiful girl
<i>karagöz-ka</i>	← <i>karagöz</i>		1. tagetes, 2. dark-eyed female
<i>ihtär-ka</i>	← <i>ihtär</i>		old woman

12 The adjective *gözäl* ‘beautiful’ is not used as an attribute for male persons.

<i>inat-ka</i>	← <i>inat</i> ¹³		stubborn woman/girl
<i>yalan-cı-yka</i> ©	← <i>yalancı</i>		liar f.
<i>aldad-ıcı-yka</i> ©	← <i>aldadıcı</i>		cheater f.
<i>kap-ıcı-yka</i> ©	← <i>kapıcı</i>		thief f.

E. Kinship terms			
female form	neutral form	remark	translation
<i>baldıs-ka</i>	← tur. <i>baldız</i>	(bulg. <i>ба̀лѡзѡ</i>)	sister-in-law, wife's sister
<i>yelti-ka</i>	← tur. <i>elti</i>		sister-in-law, husband's brother's wife
<i>hısım-ka</i>	← <i>hısım</i>		relative f.

13 The noun *inat* means stubbornness.

Psych verbs in Uyghur

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English psych verbs fall into three types, namely, Subject Experiencer (SE), Object Experiencer (OE) and Dative Experiencer (DE) verbs. Unlike English SE verbs, non-causative Uyghur verbs fall into two categories: accusative and oblique psych verbs according to the case marking of their objects. Apart from typical transitive constructions [NP_S NP_O VERB], Uyghur employs light verb constructions of the type [N/ADJ *bol-/qil-*]. We argue that light verb constructions of the type [NP_S NP-ACC N/Adj *qil-*] are analytical causative configurations. Oblique psych verbs occur in light verb constructions of the type [NP_S NP-ABL/-DAT ADJ/N-ACC *bol-/qil-*], in which *bol-* functions as BECOME, while *qil-* functions as DO/GET, and the latter is an analytical causative configuration. Our classification of Uyghur non-causative verbs into accusative and oblique psych verbs has ramifications for causativizations of Uyghur verbs. For example, the causative morpheme cannot be attached to accusative psych verbs, but is perfectly fine with oblique psych verbs. We argue that morphological causatives in Uyghur are lexical causatives in nature, as Uyghur has relatively few zero causatives like the English verbs *worry* and *please*. Uyghur analytical causative constructions of the type [NP_S NP-ABL/-DAT ADJ/N-ACC *qil-*] correspond to English *make* constructions. The fact that the Target/Subject Matter restriction is dissolved in analytical causative constructions in Uyghur in turn supports our analysis of morphological causatives as lexical causatives and light verb constructions as analytical causatives.

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1. Introduction

Psych verbs are verbs that describe mental and emotional states of human beings. Psych verbs involve two thematic roles, Experiencer and Theme. Some psych verbs require the Experiencer to be the subject, while others require the Experiencer to be the object. For example, English psych verbs are divided into three types: Subject Experiencer (SE, henceforth) verbs like *fear*, Object Experiencer (OE) verbs like *frighten*, and Dative Experiencer (DE) verbs like *appeal*. This seemingly idiosyncratic property of psych verbs has been a hotly debated topic in the linguistic literature (Postal, 1971; Belletti & Rizzi, 1988; Grimshaw 1990; Pesetsky 1995; Zhang 2007; Landou 2010; Cheung & Larson 2013). Although much research about psych verbs is done in Japanese and Turkish, little research has been done on Uyghur psych verbs. Furthermore, case marking and light verb constructions render Uyghur

psych verbs unique in their morpho-syntactic behavior. To reveal these morpho-syntactic properties, this paper applies methods of both generative and typological research in discussing the syntactic and lexical semantic features of Uyghur psych verbs. Specifically, we analyze the morpho-syntactic properties of the Uyghur equivalents of English SE and OE verbs, only because Uyghur does not possess English-type DE verbs. As the issue of causation plays an important role in the discussion of psych verbs, we distinguish between three types of causativization in Uyghur: lexical, morphological, and analytic or periphrastic/syntactic. We also analyze case marking in Uyghur causative constructions to reveal the difference between accusative psych verbs and oblique psych verbs, and claim that a causative suffix can only be added to oblique psych verbs. As for the linking patterns between thematic roles and grammatical functions, we finally check whether Target/Subject Matter (T/SM) restriction exists in Uyghur psych verbs. The paper is organized as follows: Section 2 discusses the linking problem of psych verbs in Uyghur, Section 3 describes the morpho-syntactic properties of SE type psych verbs in Uyghur, Section 4 analyzes the causativization patterns of Uyghur psych verbs, Section 5 checks the T/SM restriction in Uyghur psych verbs, and finally Section 6 concludes the paper.

2. The linking problem of psych verbs in Uyghur

The linking patterns and the backward binding facts of OE verbs present a cross-linguistic puzzle for many linguists. These properties of OE predicates have been reported for many languages including French (Bouchard, 1995), Greek (Anagnostopoulou, 1999), Italian (Belletti & Rizzi, 1988), and Japanese (Katada, 1997; Matsuo, 2002). Psych verbs exhibit different mappings between lexical semantics and syntax. Belletti and Rizzi (1988) claim that two θ -roles exist for psych verbs: Experiencer and Theme. Psych verbs can be divided into three different types: less controversial SE verbs (e.g., *fear*, *like*, *enjoy*) and problematic OE verbs (e.g., *frighten*, *amuse*, *please*) and DE verbs (e.g., *appeal*, *occur*, *matter*) which exhibit a dative preposition (*to*) on the Experiencer. Mismatch linking occurs in OE and DE verbs. The Theme is projected to the subject position and the Experiencer to the object position of verbs and prepositions respectively.

- (1)
- | | | | |
|----|------------------|-------------|----|
| a. | The boy liked | the toy. | SE |
| | Experiencer | Theme | |
| b. | The toy pleased | the boy. | OE |
| | Theme | Experiencer | |
| c. | The toy appealed | to the boy. | DE |
| | Theme | Experiencer | |

The irregular linking problem occurred in sentences (1b) and (1c), because the Experiencer (the boy) appears in the object position, and the Theme (the toy) surfaces in the subject position. This violates the notion of thematic hierarchy, namely that thematically specified arguments and the syntactic positions should have equal terms,¹ and also the spirit of UTAH (Uniformity Theta Assignment Hypothesis) proposed by Baker (1988).² In psych verbs, the thematic role, Theme, in the subject position, is thematically lower than that of the Experiencer in the object position. Thus, the syntactic structure in (1b) does not directly reflect the thematic structure. The arguments in (1a–b) have the same thematic relationship to each other, though they are projected onto the different positions, thus the mapping of thematic roles and arguments is irregular.

In discussing psych verbs in Japanese, Kuroda (1965) states that the equivalent OE verbs in Japanese are formed by adding a causative morpheme *-(s)ase* to the stem of SE verbs. In a similar vein, in discussing psych verbs in Turkish (both Turkish and Uyghur belong to Turkic language), Akan and Ibi (2006) note that the only difference between Turkish SE and OE verbs is the existence of an overt causative marking: OE verbs in Turkish occur with causative morphology. Based on the literature of Japanese and Turkish psych verbs, Zhang and Tash (2014) find that the same morpho-syntactic properties exist in Uyghur psych verbs.

Surprisingly, Uyghur psych verbs also show mismatch phenomena similar to those of their English counterparts. However, compared with their English counterparts, Uyghur psych verbs have different lexical properties and syntactic behaviors.

- (2) a. *Oquyuchi-lar imtahan-din qorq-i-du.*
 student-PL exams-ABL fear-PRES-3SG
 ‘Students fear exams.’
- b. *Imtahan oquyuchi-lar-ni qorq-ut-ti.*
 exams students-PL-ACC frighten-CAUS-PAST3SG
 ‘The exams frightened the students.’
- c. *Bu pikir oquyuchi-lar-ni qiziq-tur-di.*
 this idea students-PL-ACC appeal-CAUS-PAST3SG
 ‘The idea appealed to the students.’

1 Thematic Hierarchy proposed by Grimshaw (1990: 24): Agent > Experiencer > Goal/Source/Location > Theme.

2 Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

As can be seen from the example above, the linking pattern of an SE verb in (2a) and that of an OE verb in (2b) and (2c) are the reverse. In (2a), the subject *oquyūčilar* ‘students’ is the Experiencer and the object *imtahan* ‘exam’ is the Theme. On the other hand, in (2b) and (2c), the subject is the Theme and the object is the Experiencer. Thus, the surface linking pattern of (2a) is consistent with thematic regularity, but those of (2b) and (2c) are not. It is important to note that English OE verbs such as *frighten* in the translation of (2b) and DE verbs such as *appeal* in the translation of (2c) are expressed as the same causative pattern in Uyghur. There are no corresponding DE type psych verbs in Uyghur because all OE psych verbs in Uyghur govern the accusative case. Therefore, we will not discuss DE psych verbs in Uyghur separately. Uyghur SE verbs are always in the base morphology while the OE verbs are in causative morphology. However, when Theme is in the subject position, as in (3b), the sentence should have causative morphology. Otherwise, the sentence is not grammatical, as in (3c).

- (3) a. *Ähmät api-si-din änsiri-di.*
 Ahmed mother-POSS3SG-ABL worry-PAST3SG
 ‘Ahmed worried about his mother.’
- b. *Api-si Ähmät-ni änsirä-t-ti.*
 mother-POSS3SG Ahmed-ACC worry-CAUS-PAST3SG
 ‘X’s mother worried Ahmed.’
- c. **Api-si Ähmät-ni änsiri-di.*
 mother-POSS3SG Ahmed-ACC worry-PAST3SG
 Intended meaning: ‘His mother worried about Ahmed.’

As in (3a) and (3b), the positions of the Experiencer argument *Ahmed* and the Theme argument *apa* ‘mother’ are reversed. In (3a), the Experiencer *Ahmed* is in the subject position which is higher than the Theme *apa*, so it is in line with the word order of SE verbs in English. It should be noted that the object NP is in the Ablative case. In (3b), the Experiencer *Ahmed* marked with the Accusative case is in the object position, which is a lower position than the Theme *apa*, so it is in line with the word order of OE verbs in English. Thus, Uyghur has the same linking order as English. The Uyghur example (3b) is a morphologically overt causative. In English, causativity of OE verbs is not marked morphologically, while the causativity in Uyghur is marked by an overt causative morpheme, i.e., the suffix *-t* in (3b). Therefore (3c) is not grammatical, because it has no causative morphology. (3c) has the same word order as (3a), but with different case marking. This is an important grammatical feature to which we will return below.

Backward binding is another well-known peculiarity observed in OE verb constructions. It concerns standard cases of anaphors and bound pronouns such as *him-*

self or *each other* that require a binding antecedent. Chomsky (1986: 166) states that an anaphor must be bound in a local domain. However, in general cases, simple transitive verbs and SE psych verbs such as *fear* as in (4) resist backward binding.

- (4) a. *Each other_i's advisors invited the students_i.
b. *Each other_i's students_j fear the advisors_i.

Unacceptably, as in (4), the backward reflexive *each other* is not bound by its antecedent *the students* in (4a) and *the advisors* in (4b) respectively. Therefore, no binding configuration for the anaphor is established. By contrast, the idiosyncrasy of psych verbs is that object Experiencers of frighten-type verbs (OE verbs) can bind the anaphor in the subject Theme.

- (5) a. Each other_i's dogs_j frighten the girls_i.
b. Nasty stories_j about each other_i would annoy the professors_i.

There is a similar situation in (5a); the reflexive *each other*, the anaphor, is bound with its antecedent *the girls* backwardly. In (5b) the antecedent *professors* can bind the anaphor *each other* in the subject, which meets the c-command condition on binding.

Uyghur psych verbs also exhibit parallel binding anomalies. As in English, Uyghur simple transitives and SE psych verbs resist backward binding, as seen in (6a) and (6b) respectively.

- (6) a. *Öz-i-niñ_i dost-i Ähmät-ni_i yarlan-di.*
self-POSS3SG-GEN friend-POSS3SG Ahmed-ACC injure-PAST3SG
Intended meaning: 'His own friend injured Ahmed.'
- b. **Öz-i-niñ_i aki-si Ähmät-ni_i qoruq-ti.*
self-POSS3SG-GEN brother-POSS3SG Ahmed-ACC fear-PAST3SG
Intended meaning: 'His own brother fears Ahmed.'

In the examples illustrated above, *Ahmed* does not c-command *özi* 'himself'; therefore, it can not be the antecedent of *özi*, and therefore, (6a, b) are ungrammatical.

Interestingly, OE verbs in Uyghur allow backward binding as shown in (7):

- (7) a. *Özi-niñ_i äski huj-i Ähmät-ni_i änsirä-t-ti.*
self-GEN bad temper-POSS3SG Ahmed-ACC worry-CAUS-PAST3SG
'His own bad temper worried Ahmed.'

- b. *Özi-ni_i yağşı häwir-i Ähmät-ni_i tehimu hoşal qil-di.*
 self-GEN good news-POSS3SG Ahmed-ACC more happy DO-PAST3SG
 ‘His own good news made Ahmed very happy.’

(7a) involves the OE verb *worry*, while (7b) is an equivalent of the *make* construction in Uyghur. The reflexive anaphor *özi*, which is the subject in both (7a) and (7b), can be interpreted as being bound backwardly by its antecedent *Ahmed*, and thus grammatical.

3. SE type psych verbs in Uyghur

In Uyghur, the case marking of arguments in a sentence is determined by its verbal morphology. OE verbs are formed by attaching causative morphology to verb in the non-causative, i.e., basic morphology. Therefore, we have to analyze non-causative SE verbs before the discussion of causative OE verbs. According to the syntactic positions and surface case markings of their thematic arguments, we will classify the Uyghur SE psych verbs into five types, as shown in Table 1.

Table 1. Uyghur non-causative SE verb types and their case marking

Verb Type	Verb Example
Accusative	<i>söy-</i> ‘to love’; <i>sevin-</i> ‘to miss’
Ablative	<i>qoruq-</i> ‘to fear’; <i>zirik-</i> ‘to bore’
Dative	<i>köyün-</i> ‘to adore’; <i>häwäs qil-</i> ‘to admire’
Oblique	<i>näprät-</i> ‘to hate’; <i>häyran bol-</i> ‘to become surprised’
Inchoative	<i>qaymuq-</i> ‘to become bewildered’

Non-causative verbs in Uyghur are verbs lacking causative morphology. As in English, the Experiencer is in the subject position and the Theme in the object position. The subject NP is in the nominative. Therefore, we classify verbs according to their case-assigning properties as accusative, dative, ablative, and oblique (ablative/dative) verbs.

With accusative psych verbs, the Experiencer is marked with nominative case, and the Theme bears the accusative case. The surface case markings of arguments correspond to those of dyadic transitive verbs with the subject in the nominative and the object in the accusative, as shown in (8).

- (8) a. *U wätän-ni söy-i-du.*
 X homeland-ACC love-PRES-3SG
 ‘X loves his homeland.’

- b. *Ähmät oqu-š-ni arzu qil-i-du.*
 Ahmed study-VN-ACC wish DO-PRES-3SG
 ‘Ahmed wishes to learn.’

Accusative-psych-verbs include *söy-* ‘to love’, *säyin* ‘to miss’, *ümüt qil-* ‘to hope’, *arzu qil-* ‘to wish’, *yahši kör-* ‘to like’, etc.

The second type of psych verbs is ablative verbs, which take ablative-marked Themes. They are semantically interpreted as the source/target or SM of the mental and emotional state. These types of verbs mostly choose animate subjects; as shown in (9).

- (9) a. *Ähmät tamaq-tin zirik-ti.*
 Ahmed food-ABL fed up with-PAST3SG
 ‘Ahmed is fed up with the food.’
 b. *Ular yär täwräš-tin qorq-i-du.*
 they earthquake-ABL fear-PRES-3SG
 ‘They fear earthquakes.’

Uyghur ablative-psych-verbs include *qoruq-* ‘to fear’, *ilhamlan-* ‘to inspire’, *säskin-* ‘to detest, be fed up with’, etc.

The third type is dative psych verbs. Dative psych verbs have dative marked Goal or Source (Teramura, 1984), as illustrated in (10).

- (10) a. *Ähmät kitap oku-š-qa amraq.*
 Ahmed book read-VN-DAT fond of
 ‘Ahmed is fond of reading books.’
 b. *Män u-niñ ipadi-si-gä häwäs qil-i-man.*
 I X-GEN performance-POSS3SG-DAT admire DO-PRES-1SG
 ‘I admire X’s performance.’

Uyghur dative psych verbs include *köyün-* ‘to adore’, *talmür-* ‘to long for’, *häwäs qil-* ‘to admire’, *ašik bol-* (non-causative) ‘to fall in love’, etc.

However, there is a fourth type of psych verbs, oblique psych verbs that allow both an ablative and a dative-marked Theme as their object, as illustrated in (11).

- (11) a. *Biz düşmän-din/-gä näpretlin-i-miz.*
 we enemy-ABL/-DAT hate-PRES-1PL
 ‘We hate enemies.’

- b. *U bu iš-qa/-tin häyran bol-di.*
 X this thing-DAT/ABL surprise BECOME-PAST3SG
 'X was surprised by this thing/event.'

Non-causative ablative/dative psych verbs with alternative cases include *häyran bol-* 'to be surprised' *yirgän-* 'to feel sick', *ümütsizlän-* 'to lose hope', *näprätlän-* 'to hate', etc.

The fifth type of non-causative psych verbs in Uyghur only expresses that the subject is in a certain psychological state. These are the inchoative counterparts of English causative-inchoative alternations. Therefore, they only have a subject Experiencer; see (12).

- (12) a. *Ähmät qaymuq-ti.*
 Ahmed get bewildered-PAST3SG
 'Ahmed was bewildered. / Ahmed was puzzled.'
- b. *Qiz guman qil-di.*
 girl suspicion DO-PAST3SG
 'The girl got suspicious.'

It should be noted that this kind of construction in Uyghur and other Turkic languages has no passive; it can only describe a state or an event.

Of the five types of verbs in Table 1, the three in the middle can be collapsed into one category: oblique verbs. Oblique verbs include ablative verbs that require the ablative, dative verbs that take the dative, and ablative/dative verbs that allow their objects to take either. In other words, Uyghur verbs fall into two big categories: accusative verbs and oblique verbs. For the sake of convenience, we call psych verbs with accusative marked objects accusative psych verbs, psych verbs with ablative or dative marked objects oblique psych verbs. This classification has ramifications for causativizations of Uyghur verbs, as will be illustrated in Section 4.

From the above analysis, it can be seen that Uyghur has light verb constructions [N/ADJ *bol-/qil-*] involving psych predicates, apart from typical transitive constructions [NP_s NP_o VERB]. Uyghur is an SOV language.

Oblique psych verbs build light verb constructions [NP_s NP-ABL/-DAT ADJ/N-ACC *bol-/qil-*] in which *bol* functions as BECOME while *qil-* functions as DO/GET. For the inchoative psych verbs, the light verb construction has the form [NP_s N/ADJ *bol-/qil-*].

Accusative psych verbs build light verb constructions with the pattern [NP_s V-GER-ACC N/ADJ *qil-*], in which the object is a verbal noun derived with the suffix *-š* as shown in (8b). Light verbs other than *qil-* can occur, for example (13).

- (13) *U kitap-ni yaxşı köri-du.*
 X book-ACC good see-PRES-3SG
 'X likes books.'

In (13), *yaxşı kör-* 'to like' is a light verb of the type [Adj + light verb].

4. Causativization of Uyghur psych verbs

Causativization is a common linguistic phenomenon. Goddard defines causativity as "an expression in which an event (the caused event) is depicted as taking place because someone does something or because something happens" (1998: 260). From a typological point of view, Comrie (1989) distinguishes three different types of causatives: analytical, morphological and lexical. Halle and Marantz (1993) claim that causatives appear in three forms: (i) as an independent verb, resulting in analytical or periphrastic causatives; (ii) as a bound morpheme attached to the verbal root, resulting in syntactic or morphological causatives; or (iii) as a zero morpheme resulting in lexical causatives.

Like Japanese and Turkish, Uyghur is a typical agglutinative language. As Tömrür (1987) states, the formation of new words in Uyghur is similar to the formation of grammatical forms, because it is basically carried out by means of adding suffixes to a word. In the same way, creation of a causative construction to a large extent depends on morphology; therefore, morphological causative is the typical causative pattern in Uyghur. Analytical and lexical causative also exist in Uyghur. In the following, we will discuss Uyghur causatives in terms of Halle and Marantz's typology.

4.1. Analytical or periphrastic causatives

As shown in the last section, verbs in Uyghur non-causative sentences lack causative morphology. In light verb constructions, *bol* is an anti-causative and *qil-* corresponds to the non-causative DO/GET in both [NP_s NP-ABL/-DAT ADJ/N *qil-*] and [NP_s V-N-ACC N/ADJ *qil-*] constructions. In [ADJ/N *bol-/qil-*] constructions that have either *bol-* or *qil-*, *qil-* functions as the causative form. For example, the causative form of (11b), repeated as (14a), is (14b). Please note that the Experiencer is in the accusative.

- (14) a. *U bu iş-tin/-qa häyran bol-di.*
 X this event-ABL/-DAT surprise BECOME-PAST3SG
 'X was surprise at this event.'
- b. *Bu iş u-ni häyran qil-di.*
 this event X-ACC surprise CAUS-PAST3SG
 'This event surprised X.'

Example (15) is another instance of anti-causative and causative alternation.

- (15) a. *Ača-m bu iš-tin/-qa xošal bol-di.*
 sister-POSS1SG this event-ABL/-DAT pleased BECOME-PAST3SG
 ‘My sister is pleased with this event.’
- b. *Bu iš ača-m-ni xošal qil-di (*bol-di).*
 this event sister-POSS1SG-ACC pleased DO-PAST3SG (*BECOME-PAST3SG)
 ‘This event made my sister pleased.’

Periphrastic causatives are created by the combination of an adjective or noun with a light verb such as *qil-*, *sal-*, *qoy-*, *kät-*, *qozγa-*; therefore, they usually appear in light verb constructions.

- (16) a. *U iš qil-di.*
 X work DO-PAST3SG
 ‘X did his work.’
- b. *Bu häwär u-ni hošal qil-di.*
 this news X-ACC happy CAUS-PAST3SG
 ‘This news made X happy.’

As in example (16a), the original meaning of verb *qil-* is doing something, but when *qil-* is attached to the psych adjective *hošal-* as in (16b), its original meaning is bleached, and the verb becomes a light verb with causative meaning. From the typological point of view, Moreno shows that in most languages the lexical forms of ‘make’ initially mean ‘to build, to create’, and this initial meaning is their lexical content, while the causative meaning is the syntactic use in which their lexical content is lost. Also in Uyghur, the initial meaning of the verbs *qil-*, *sal-*, *qoy-*, and *qozγa-* is ‘to make, do, create, happen, build, appear’ (1993: 155) denoting a real action. When these verbs denote abstract notions, their causative meaning becomes apparent.

Some periphrastic causatives are irregular and must be learned, and they can undergo semantic drift to form idioms, for example (17):

- (17) a. *Yigit-niñ yürig-i-gä ot kät-ti.*
 young man-GEN heart-POSS3SG-DAT fire go-PAST3SG
 ‘The young man’s heart was burning.’
 ‘The young man had fallen in love.’ (idiomatic meaning)

- b. *Kiz yigit-niñ yürig-i-gä ot yaq-ti.*
 girl young man-GEN heart-POSS3SG-DAT fire set on fire-PAST3SG
 ‘The girl made the young man’s heart burn.’
 ‘The girl made the young man fall in love (with her).’ (idiomatic meaning)

The original meaning of *kät-* in (17a) is ‘to go’; when combined with the noun *ot* ‘fire’ it creates the idiomatic non-causative form *ot kät-* ‘to burn’, while in (17b) the verb *yaq-* originally denotes the meaning of ‘to set on fire’. It can also be combined with the noun *ot* meaning ‘to make something burn’.

To sum up, causative light verb constructions involving the light verb *qil-* take the configuration [NP_s NP-ACC ADJ/N *qil-*] in which *qil-* equates to CAUS or English ‘make’.

4.2. Causative morphology in Uyghur

In morphological causative constructions the verb bears causative morphology. Morphological causatives are the most commonly used causativization patterns in Uyghur. Differences between SE and OE verbs are expressed by adding an overt causative morpheme such as *-dur* (the most productive suffix) to the verbal stem. OE psych verbs in Uyghur are mainly based on morphological causatives (18).

- (18) a. *Män müšük-tin qorq-i-män.*
 I cat-ABL fear-PRES-1SG
 ‘I fear cats.’
 b. *Müşük mi-ni qorq-ut-i-du.*
 cat I-ACC fear-CAUS-PRES-3SG
 ‘Cats frighten me.’

In (18a), *qoruq-* ‘to fear’ is a non-causative psych verb used with an object marked with the ablative. When the causative morpheme *-ut* is attached, the causative verb *qorqut-* ‘to frighten’ is created and the sentence is causativized, as illustrated in (18b).

As stated above, in Uyghur, morphological causative constructions are often created by adding bound causative morphemes to the verb stem. Causative psych verbs in Uyghur can be created by attaching the suffix *-dur-*, *-dür-*, *-tur-*, *-tür-*, or *-küz-*, *-güz-*, *-quz-*, *-yuz* to mono-syllabic verbs without coda (i.e., verbs ending in a vowel) and with non-*r* coda (i.e., verbs end with a consonant that is not *r*), for example, *yä+dür/güz-* = *yidür-/yigüz-* ‘to make sb eat’, *yaz+dur-* = *yazdur-* ‘to make sb write’, *tap+quz-* = *tapquz-* ‘to make sb find sth’; and by attaching suffix *-t* to bi-syllabic verbs ending with *-r*, for example, *aqar+t-* = *aqart-* ‘to make something white’, *kötür+t-* = *kötürt-* ‘to make somebody carry something’.

4.3. Morphological causatives in Uyghur

Most Uyghur OE verbs can be decomposed into an SE verb and a causative morpheme. Interestingly, the causative morpheme can only be added to oblique psych verbs. In Section 3 (Table 3), we show that there are five types of SE verbs classified according to their case marking.

As Sugioka (1992) suggests, in Japanese the dative object of SE verbs expresses the cause/source of emotion whereas an accusative object indicates the target of emotion. In general, accusative psych verbs in Uyghur correspond to English psych verbs with Theme subjects such as *love*, and indicate the target of emotion as in (19a). On the other hand, oblique psych verbs indicate the cause/source of emotion as in (20a).

- (19) a. *Oquyuči-lar kino kör-iš-ni arzu qil-di.*
 student-PL movie see-VN-ACC wish DO-PAST3SG
 ‘The students wished to see a movie.’
- b. *Kino köri-š oquyuči-lar tärp-i-din arzu qil-in-di.*
 movie see-VN student-PL side-POSS3SG-ABL wish DO-PASS-PAST3SG
 ‘Seeing a movie was wished for by students.’
- (20) a. *Kişi-lär it-niñ qaw-iš-i-din qoruq-ti.*
 person-PL dog-GEN barking-VN-POSS3SG-ABL fear-PAST3SG
 ‘People were afraid of the dog’s barking.’
- b. **It-niñ qaw-iš-i kişi-lär-din /*
 dog-GEN barking-VN-POSS3SG person-PL-ABL
kişi-lär tärp-i-din qurq-ul-di.
 person-PL side-POSS3SG-ABL fear-PASS-PAST3SG
 Intended meaning: ‘The dog’s barking was feared by the people.’
- c. *Kişi-lar it-niñ qawış-i tärp-i-din*
 person-PL dog-GEN barking-POSS3SG by-POSS3SG-ABL
qurq-ut-il-di. fear-CAUS-PASS-PAST3SG
 ‘The people were frightened by the dog’s barking.’

According to Burzio’s generalization (Burzio, 1986), a verb can assign a theta role to its subject position if and only if it can assign an accusative case to its object. This generalization infers that if a given verb assigns a theta role to its subject, it will assign accusative case to its object. Also, it is mentioned by Motomura in his analysis of Japanese SE verbs that “SE verbs should resist passivization if they do not project an external argument in the way unaccusative verbs do” (2004: 162). It is clear that

unaccusative verbs have no external argument. Accusative verbs do have external arguments and they do not resist passivization. Therefore, only SE verbs that take accusative objects can be passivized. SE verbs that take oblique objects cannot be passivized. Now let us look at the corresponding passive forms of the sentences that are illustrated above.

In (19b), accusative psych verbs can be passivized, because they have external arguments, so they are canonical transitive verbs. Besides, they do not have to be affected by the psychological state of the Experiencer. However, oblique psych verbs lack external arguments and can not be passivized, as in (20b). After they are causativized, and thus obtain external arguments, passivization is not only fine but also has a further impersonal reading as shown in (20c).³

In Uyghur, OE verbs are composed of a causative morpheme and an SE verb. In this case, SE verbs do not have any external argument. Since SE verbs have no external argument, they can receive a Causer role as an external argument when causativized. This means that the SE verb that is part of an OE verb must have the structure of the SE verbs with oblique-marked object construction, rather than that of the accusative-marked object construction. Therefore, a causative morpheme can be affixed to oblique psych verbs, but not to accusative psych verbs. Let us consider example (21).

- 3 In Turkish, as an anonymous reviewer pointed out, such verbs can be passivized yet acquire an impersonal passive reading. Impersonal passivization is also fine in Uyghur, but requires causativization beforehand, e.g. (i):

- (i) a. *U aylä-din razi bol-di.*
X family-ABL satisfied BECOME-PAST3SG
'X was satisfied with his family.'
- b. * *U aylä-si tarp-i-din razi bol-in-di.*
X family-POSS3SG side-POSS3SG-ABL satisfied BECOME-PASS-PAST
- c. *U oy-i tarp-i-din razi qil-in-di.*
X family-POSS3SG side-POSS3SG-ABL satisfied DO-PASS-PAST3SG
'X was satisfied by X's family.'
- d. *Aylä razi qil-lin di.*
family satisfied DO-PASS-PAST
'The family was satisfied.'

As shown in (ib), direct passivization for oblique psych verbs is bad. However, passivization is fine after causativization as shown in (ic). The impersonal passive reading of (id) also builds on causativization. It is the same with non-psych verbs as shown in (ii):

- (ii) a. *Kişilär yugur-di.*
person-PL run-PAST3SG
'People ran.'
- b. *Yugur-t-il-di.*
run-CAUS-PASS-PAST3SG
'Running was done.'

- (21) a. *Güli müşük-ni öç kör-ü-dü.*
 Güli cat-ACC hate look-PRES-3SG
 ‘Güli hates cats.’
- b. **Müşük Güli-ni öç körset-ti.*
 cat Güli-ACC hate show.CAUS-PAST3SG
 Intended meaning: ‘Cats made Güli hate them.’
- c. *Män it-tin yirgän-di-m.*
 I dog-ABL detest-PAST-1SG
 ‘I detested dogs.’
- d. *It mi-ni yirgän-dür-di.*
 dog I-ACC detest-CAUS-PAST3SG
 ‘Dogs made me detest them.’

As we can see from the examples, the causative morpheme cannot be added to psych verbs taking an accusative-marked object, as in (21b), while it is acceptable with psych verbs with ablative-marked objects as in (21d). This is firstly because, in the former structure, accusative psych verbs do not exhibit any alternation between the two thematic roles, while in the latter a cause role is added to the oblique psych verb as an external subject through the causativization process. When oblique psych verbs undergo causativization, the arguments and the sentence structure change correspondingly.

Furthermore, because accusative verbs already have a structurally marked object, the imposition of another syntactic object through causativization violates the double accusative restriction observed in Turkish, as shown with non-psych verbs in (22).

- (22) a. *Ali kitap oku-du.*
 Ali book read-PAST3SG
 ‘Ali read books.’
- b. *Ahmet Ali-ye/*-ni kitap oku-t-ti.*
 Ahmed Ali-DAT/*-ACC book read-CAUS-PAST3SG
 ‘Ahmed made Ali read books.’
- c. *Ahmet Ali-ye kitab-i oku-t-tu.*
 Ahmed Ali-DAT book-ACC read-CAUS-PAST3SG
 ‘Ahmed made Ali read the book.’

Just as in Turkish, *kitap* in (22a) is a non-specific yet structurally marked object. Such NPs, though morphologically zero-marked for case, bear structural marking as objects blocking the introduction of another accusative marked object into the structure, but allowing for an oblique case marking under causativization, as in (22b).⁴ The zero-marked object could even be made overt by adding *-ni* to *kitap*, which renders it specific or definite, as shown in (22c).

The asymmetry between the causativization of accusative vs. oblique psych verbs points to the status of the object of these two types of verbs. The arguments of accusative psych verbs have a true syntactic object status, but those of oblique psych verbs probably do not, as is observed in Turkish by Öztürk (2005). According to Öztürk's observation, case morphology does not always directly relate to the syntactic position of an NP. We believe that this is the case in Uyghur too, and we will address the issue in another paper.

4.4. Lexical causatives in Uyghur

Lexical causatives, though mono-morphemic at the surface, are actually bi-morphemic predicates that are formed in syntax through verb incorporation (Hale & Keyser 1993). Lexical causatives or zero causatives are usually treated as zero derived verbs. Zero derivation is a word formation process in which there is a change in the function of the base noun or adjective, but no corresponding change in form. Without reference to meaning, one can hardly discern the causative nature of the expression itself. Bussmann (1996) indicates that this group of words can be used both transitively and intransitively, and that the transitive ones convey the meaning of causation. For the benefit of clarity, let us look at Bussmann's examples (23).

- (23) a. The sun is melting the ice. (causative)
 b. The ice is melting. (intransitive)

Furthermore, lexical causatives can undergo semantic drift, requiring idiomatic readings in combination with particular argument NPs, as discussed by Miyagawa (1989). Uyghur psych verbs have relatively few zero causatives with Theme subject like their English counterparts such as *worry* and *please*. Lexical causatives in Uyghur are formed with some lexical causative morphemes rather than causative suffixes. Uyghur lexical causatives are irregular and non-productive, and the number of these types of causatives is very limited. Table 2 gives a list of lexical causatives in Uyghur:

4 We thank an anonymous reviewer for pointing this out and providing us with a Turkish example.

Table 2. Uyghur lexical causatives

Lexical Causative	English Meaning	Idiomatic Meaning
<i>buz-</i>	'to destroy'	'to worsen'
<i>äz-</i>	'to crush'	'to depress'
<i>çal-</i>	'to play'	'to tease'
<i>tüzä-</i>	'to dress'	'to better'
<i>bas-</i>	'to press, suppress'	'to sadden'
<i>äg-</i>	'to bend'	'to obey'

As stated by Aksan and Ibe (2004: 115) in their discussion of Turkish lexical causatives, lexical causatives quite easily receive psych interpretation, and come to express the sense of “contact” in mental space. Uyghur lexical causatives are often found in idioms, and have undergone semantic drift in these idioms. In other words, they originally indicate a sense of “contact” in the physical world, but when they change to form an idiomatic expression, they receive a psych-reading and begin to express a sense of “contact” in the mental world. Examples (24) and (25) testify to their lexical nature:

- (24) *Ähmät öj-ni tüzi-di/ taš-ni äz-di /*
 Ahmed room-ACC tidy up/ rock-ACC crush-PAST3SG /
kunupki-ni bas-ti.
 button-ACC press-PAST3SG
 ‘Ahmed tidied up the room/ crushed the rock/ pressed the button.’

A semantic change occurs with the introduction of a sentient object, and at the same time, the sentence has a psych-chose which expresses “contact in mental space” as shown in (25).

- (25) *Ähmät Güli-ni tüzi-di / äz-di / bas-ti.*
 Ahmed Güli-ACC tidy up-PAST3SG crush-PAST3SG press down-PAST3SG
 ‘Ahmed improved the image of/saddened/depressed Güli.’

Furthermore, as in Japanese, lexical causatives in Uyghur can appear in non-productive nominal forms, as shown in Table 3.

Table 3: Non-productive nominalization of Uyghur lexical causatives

Lexical Causatives	Meaning	Nominalization	Meaning
<i>çal-</i>	‘to play (music)’	<i>çal-yu</i>	‘musical instrument’
<i>bas-</i>	‘to press’	<i>bas-maq</i>	‘trap (blotter)’
<i>äg-</i>	‘to bend’	<i>ägim, ägläk</i>	‘arch, sieve’

4.5. Uyghur morphological causatives as lexical causatives

As argued by Miyagawa (2010), the causative in *-sase* appears as an analytical or morphological causative, but can function as a lexical causative when there is no corresponding synthetic lexical causative in Japanese. Likewise, Uyghur morphological causatives are lexical causatives when there are no corresponding synthetic lexical causatives. Miyagawa uses a double causative test to show this in Japanese: unaccusative verbs like *taore* ‘fall down’ have a synthetic causative form as in *tao-s* ‘press down’. A double causative is impossible **taore-sase-sase* since it is blocked by the corresponding synthetic lexical causative *tao-s*. However, double-causative is fine with unaccusative verbs like *aw* ‘to match’ and *niow* ‘to smell’, which do have synthetic causative forms, for example, *aw-(s)ase-sase* and *niow-(s)ase-sase*. However, as shown above, there are few synthetic lexical causatives in Uyghur. The double-causative test produces some different results.

Like Japanese, with verbs that do not have synthetic lexical causatives, double causative suffixation is fine, as shown in (26):

- (26) *Muallim Ähmät-kä oquyuçi-lar-ni jügür-t-güz-di.*
 teacher Ahmed-DAT students-PL-ACC run-CAUS-CAUS-PAST3SG
 ‘The teacher made Ahmed let the students run.’

Example (26) has a double causative meaning where the teacher is making *Ahmed* make students run, and the verb has two causative suffixes *-t* and *-dur* correspondingly. With verbs that do have synthetic causative forms, double causative suffixation is fine and it can be reduced to single causative suffixation without change of meaning, as shown in (27).

- (27) a. *Muallim Ähmät-ka işik-ni čaq-tur-güz-di.*
 teacher Ahmed-DAT door-ACC break-CAUS-CAUS-PAST3SG
 b. *Muallim Ähmät-kä işik-ni čaq-tur-di.*
 teacher Ahmed-DAT door-ACC break-CAUS-PAST3SG
 ‘The teacher made Ahmed break the door.’

In (27), *čaq-* ‘break’ is a lexical causative; double causative suffixation (27a) and single causative suffixation (27b) are both fine. As shown by Lewis (1967), Turkic languages allow multiple causative suffixation, for example, *öl-dür-t-tür-t-* ‘to get someone to get someone to get someone to kill’, in which *öl-* means ‘to die’. Given that single causative suffixation (27b) is fine, a property similar to Japanese, we can maintain that morphological causatives in Uyghur are lexical causatives in nature.

5. T/SM restriction in Uyghur

According to Pesetsky (1995: 56), the Theme argument of psych verbs is characterized as either a cause of emotion or an object of emotion. The former is named Causer, and is associated with OE verbs, while the latter is named Target/Subject Matter (T/SM), and is associated with SE verbs. For the distinction between Causer and T/SM, he points out that there is a seemingly arbitrary prohibition against the co-occurrence of T/SM with Causer within the same predicate, as illustrated in (28).

- (28) a. The newspaper article annoyed me.
 b. *The newspaper article annoyed me at the government.
 c. The newspaper article made me annoyed at the government.

Pesetsky also notes that Causer and T/SM cannot occur together in the same predicate if it contains a zero cause, but can occur together if it is a periphrastic construction.

Pesetsky argues that the OE verbs in English are bi-morphemic, but the CAUS is a phonologically null morpheme affixed to the bound root, as in (29).

- (29) [[√annoy]Ø CAUS]

The original roots of verbs like √*annoy* are actually non-causative SE verbs with subject Experiencer. When the CAUS is added to the root, the Causer subject of OE predicates becomes apparent. According to his analysis, the bi-morphemic characteristics of English OE verbs are similar to the way Japanese forms its causative constructions; a lexically realized causative morpheme, *(s)ase*, is added to a psych verb, for instance *yorokon* ‘to be pleased’ to *yorokob-ase* ‘to be-please CAUS’. If we apply this notion to the construction of Uyghur psych verbs, the form of equivalent OE verbs in Uyghur should be as in (30):

- (30) [[√SE] *dur* CAUS]

Unlike their English counterparts, Uyghur OE verbs have an overt causative morpheme, e.g. *-dur*, added to the stem of the psych verb. However, in our view, the function of the theta role of OE verbs in Uyghur is analogous to that of its English

counterparts, because OE verbs in both languages are bi-morphemic and violate the T/SM restriction, for instance:

- (31) a. *Däwir jörn-il-i-di-ki maqalä Bel-ni Ƴäzäplan-dür-di.*
 Times magazine-POSS3SG-LOC-KI article Bill-ACC anger-CAUS-PAST3SG
 ‘The article in the Times angered Bill.’
- (32) b. **Däwir jörn-il-i-di-ki maqalä Bel-ni*
 Times magazine-POSS3SG-LOC-KI article Bill-ACC
hökümät-kä Ƴäzäplan-dür-di.
 government-DAT anger-CAUS-PAST3SG
 Intended meaning: ‘*The article in the Times angered Bill at the government.’

In (31a) there is no target of emotion, and the causative suffix *-dür* added to the verb *Ƴäzäplan-* ‘to anger’ forms a morphological causative construction. When the target of emotion is present, as in (31b), a seemingly arbitrary prohibition blocks the co-occurrence of the two arguments within the same sentence, violating the T/SM restriction.

As Pesetsky points out, the prohibition of the co-occurrence of both causer and T/SM cannot merely be due to the semantics, because both theta roles are permitted in the periphrastic causative *make* configuration. Since *make* itself semantically encodes causation, and therefore no zero cause is involved, it does not create any prohibition against the restriction. In a similar vein, we show that the Uyghur periphrastic [N/ADJ *qil-*] light verb construction can take the Target and Subject Matter without violating the T/SM restriction, because, as shown in Section 4, the Uyghur periphrastic causative construction [NP_s NP-ABL/-DAT ADJ/N-ACC *qil-*] corresponds to the English periphrastic *make* construction; see (32).

- (33) *Däwir jörn-il-i-di-ki maqalä Bel-niñ hökümät-kä*
 Times magazine-POSS3SG-LOC-KI article Bill-GEN government-DAT
bolƳan Ƴäzäpi-ni qozƳi-di.
 be-PARTCPL anger-ACC provoke-PAST3SG
 ‘The article in the Times provoked Bill [making him] angry at the government.’

In the grammatical periphrastic counterpart, as in (33), the light verb *qozƳa-* ‘to provoke’ itself semantically encodes causation, and created periphrastic form together with the noun *Ƴäzäp* ‘anger’. Hence no zero cause is involved and therefore the construction would not violate the T/SM restriction. Therefore, our claim about the periphrastic causative construction in Uyghur psych verbs seems to hold.

6. Conclusions

In this paper we examined the semantic and syntactic properties of Uyghur psych verbs in terms of their (non-)causativization, case marking properties, and T/SM Restriction. Unlike English SE type verbs, the Uyghur non-causative verbs fall into two big categories, viz, accusative and oblique verbs, according to the case marking of their objects. We call psych verbs with accusative-marked objects accusative psych verbs, and psych verbs with ablative-marked objects oblique psych verbs. We also show that Uyghur has light verb constructions (N/ADJ *bol-/qil-*) involving psych predicates, apart from typical transitive constructions [NP_s NP_o VERB] since Uyghur is a SOV language. Accusative psych verbs build light verb constructions with the pattern [NP_s VN-ACC N/ADJ *qil-*] in which the object is a verbal noun derived by the suffix *-š*. In other words, there is no non-causative light verb construction [NP_s NP-ACC N/ADJ *qil-*]; that is, the [NP_s NP-ACC N/ADJ *qil-*] construction is an analytical or periphrastic causative configuration. Oblique psych verbs build light verb constructions [NP_s NP-ABL/-DAT ADJ/N-ACC *bol-/qil-*] in which *bol-* functions as BECOME while *qil-* as DO/GET. Our classification of Uyghur non-causative verbs into accusative and ablative/dative psych verbs has ramifications for causativizations of Uyghur verbs. For example, the causative morpheme cannot be attached to accusative psych verbs, but with ablative/dative psych verbs the causative suffixation is perfectly fine. We argue that morphological causatives in Uyghur are lexical causatives in nature, as Uyghur has relatively few zero causatives with Theme subject like their English counterparts *worry* and *please*. Uyghur periphrastic causative constructions [NP_s NP-ABL/-DAT ADJ/N-ACC *qil-*] correspond to the English periphrastic *make* construction. The fact that the T/SM Restriction does not apply in the case of analytical causative constructions, but does apply in the case of morphological causatives in Uyghur in turn provides support for our analysis about morphological causatives as lexical causatives and light verb constructions as analytical causatives in this language.

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Abbreviations

ABL	ablative	DO	do
ACC	accusative	DAT	dative
ADJ	adjective	DE	dative Experiencer
BECOME	become	DIN/QA	oblique case marker <i>-din</i> or <i>-qa</i>
CAUS	cause		

GEN	genitive	PL	plural
GER	gerund marker	POSS	possessive
GET	get	PRES	present
MAKE	make	SE	Subject Experiencer
N	noun	SG	singular
NI	accusative case marker <i>-ni</i>	SVO	subject verb object
NP _O	object noun phrase	T/SM	target/subject matter
NP _S	subject noun phrase	X	he, she, it
OE	Object Experiencer	v	verb
PASS	passive	VN	verbal noun
PAST	past		

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Predicational and sentential positions of interrogative clitics in Turkic

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The present paper surveys predicational and sentential positions of the interrogative particles (Q-clitics) in various modern Turkic languages. In nominal predicates, the following patterns have been found: (1) the medial position, where the Q-clitic precedes the enclitic person-number markers or copular markers; (2) the final position, where the Q-clitic follows the person-number markers or copular markers. Regarding sentential positions, the patterns that have been found are as follows: (1) the interrogative clitic can freely move around the sentence, and attach to the focused constituent; (2) the clitic has a fixed position after the predicate. In each case, the second pattern appears to be typical in Central Asian Turkic languages. It will be shown that in such languages, rather than being marked by the Q-clitic, the focused constituent is just brought to pre-predicative position with accompanying suprasegmental features. A further pattern found in interrogative clauses is characterized by absence of a morphosyntactic element. Interrogation realized without a Q-clitic and just by distinctive interrogative intonation is a contact-induced phenomenon in Turkic.

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1. Introduction

In almost all older and contemporary Turkic languages, the means for signaling a polar question is the use of an interrogative particle (henceforth Q-clitic). Polar questions, which are also called *yes-no* questions, are defined as those questions “to which the expected answer is the equivalent of ‘yes’ or ‘no’” (Dryer 2013: 470). The present paper¹ aims to give a brief overview of predicational and sentential positions of the Q-clitics in various Turkic languages. The same clitics can also be used in

- 1 This paper is a slightly revised version of a talk given at *The 17th International Conference on Turkish Linguistics*, Université de Rouen (Rouen, France), 3–5 September, 2014. Thanks go to Beste Kamali, who organized the panel “Interrogatives in varieties of Turkic”, and to other participants at the conference. I am especially grateful to Ak Welsapar, Astrid Menz, Aygül Alakbarova, Aynur Abish, Esmat Esmaeili, Kemal Güler, Kenjagul Kalieva and Rizwangul Kurban, who kindly discussed various examples presented in this paper.

echo or tag questions, as well as in non-interrogative contexts, such as in temporal clauses. These kinds of usages are not dealt with in this paper. Other morphological elements that occur with modal functions in interrogative clauses are not discussed either.

The languages investigated belong to the Oghuz (Southwest), Kipchak (Northwest) or Karluk (Southeast) branches of Turkic languages. The situation in older Turkic varieties and in non-standard dialects will not be taken into account. Turkish examples are given in the standard orthography, while examples from other Turkic languages are rendered in a Turcological transcription.

2. Morphophonological shapes of the Q-clitic

In East Old Turkic, the Q-clitic *mU* is likely to have had front and back phonological realizations (see Erdal 2004: 349). The cognates have different morphophonological shapes, and are subject to different orthographic conventions in modern languages. The following are a few examples. (1) The Turkish form *mI*, which displays fourfold allomorphy depending on the phonological quality of the preceding word, *mI*, *mi mu*, *mü*, is written separately, e.g. *Kız mı?*, *Çiçek mi?*, *Su mu?*, *Söz mü?*. The Azeri form *-mİ²* (*-mİ*, *-mi*, *-mu*, *-mü*), however, attaches to the preceding word. (2) In Noghay, *-MA* has six allomorphs: *-ma*, *-me*, *-ba*, *-be*, *-pa*, *-pe*. It appears as *-ba* after stems ending with /z/, as *-ma* after vowels and voiced consonants (including the nasal ones), and as *-pa* after voiceless consonants, e.g. *Qızba?*, *Köppe?*, *Oquwşıñma?* (3) In Kazakh, the interrogative element *MA* is not formally connected to the preceding word: *ba* occurs after stems ending with /z/ or with nasal consonants, *ma* after stems ending with a vowel or voiced consonant, and *pa* after voiceless consonants, e.g. *Qız ba?*, *Sen be?*, *Bala ma?*, *Däpter me?*, *Kitap pa?*, *Mektep pe?* (4) The cognate *-BI* in Kirghiz appears as *-bİ*, *-bi*, *-bu* or *-bü* after voiced consonants and vowels, and as *-pİ*, *-pi*, *-pu*, *-pü* after voiceless consonants, e.g. *Qızbİ?*, *Atambİ?*, *Köppü?*, *Öydöbü?*, *Açpİ?* (5) In Karachay-Balkar, the bound suffix has four allomorphs, *-mİ*, *-mi*, *-mu*, *-mü*, e.g. *Qızmİ?*, *Menmi?*, *Žoqmı?*, *Köpmü?* (6) The Uyghur interrogative clitic is uniformly *-mu*, e.g. *Qızmu?*, *Mektepmu?*, *Közmu?*, *Däptermu?*

3. Predicational positions

The following account mainly looks at the occurrence of the Q-clitic in nominal predicates of non-past and past copular clauses. The situation in verbal predicates, except for those based on the past marker *-DI* or the conditional marker *-sA*, is also briefly commented upon, but is not dealt with systematically. Verbal predicates based on past or conditional markers take person-number endings of possessive origin and, as is well known, the interrogative element typically appears after these endings.

- 2 A hyphen before the Q-clitic indicates that, in the standard orthography of the given language, the clitic is treated as a bound morpheme.

Regarding the position of the Q-clitic in nominal predicates, the following two patterns have been found: (1) the medial position, where the Q-clitic takes an interior position by following a non-verb (noun, adjective, etc.) and preceding the enclitic person-number markers (PN) or the past copular marker (PCOP), e.g. Turkish *Öğretmen mi-sin?* [teacher-Q-2SG] ‘Are you a teacher?’, *Öğretmen mi-ydi-n?* [teacher-Q-PCOP-2SG] ‘Were you a teacher?’, and (2) the final position, where the Q-clitic follows the enclitic person-number markers or the copular markers, e.g. Noghay *Oğutuwşı-siñ-ma?* [teacher-2SG-Q] ‘Are you a teacher?’, *Oğutuwşı edi-ñ-me?* [teacher-PCOP-2SG-Q] ‘Were you a teacher?’, see Table 1.

Pattern 1	Non-verb + Q + PN Non-verb + Q + PCOP + PN
Pattern 2	Non-verb + PN + Q Non-verb + PCOP + PN + Q

Table 1: Positions of the Q-clitic in nominal predicates

In Turkish nominal predicates, the Q-clitic has an interior position. The only exception is found in the third person plural of non-past copular clauses, which has a deviant order; see Table 2.

	Non-past copular clauses	Past copular clauses
1SG	<i>(Ben) öğretmen mi-yim?</i> ‘Am I a teacher?’	<i>(Ben) öğretmen mi-ydi-m?</i> ‘Was I a teacher?’
2SG	<i>(Sen) öğretmen mi-sin?</i> ‘Are you a teacher?’	<i>(Sen) öğretmen mi-ydi-n?</i> ‘Were you a teacher?’
3SG	<i>(O) öğretmen mi?</i> ‘Is (s)he a teacher?’	<i>(O) öğretmen mi-ydi?</i> ‘Was (s)he a teacher?’
1PL	<i>(Biz) öğretmen mi-yiz?</i> ‘Are we teachers?’	<i>(Biz) öğretmen mi-ydi-k?</i> ‘Were we teachers?’
2PL	<i>(Siz) öğretmen mi-siniz?</i> ‘Are you teachers?’	<i>(Siz) öğretmen mi-ydi-niz?</i> ‘Were you teachers?’
3PL	<i>(Onlar) öğretmen-ler mi?</i> ‘Are they teachers?’	<i>(Onlar) öğretmen mi-ydi-ler?</i> ‘Were they teachers?’

Table 2: Occurrence of the Q-clitic in nominal predicates in Turkish

An anonymous reviewer of the abstract version of this paper (Karakoç 2014) commented: “‘Are they teachers?’ is not an ‘exception’ at all, as stated in the abstract, if one realizes that +*lar* is a bound suffix whereas the clitical person pronouns are clitics and not suffixes”. The reviewer marks the suffix with +, a sign used for denoting a nominal suffix. This statement is quite problematic, especially with regard to the question whether *-lar* attached to *öğretmen* in the given paradigm is really a bound nominal suffix. First of all, it needs to be pointed out that there are two types of *-lar*

with different intonation patterns. The nominal plural suffix *-lar* is an accented morpheme, e.g. *öğretmenlér*, meaning ‘the teachers’. The person-number marker *-lar*, which denotes third person plural subject agreement, is not accented. As a rule, high tone and stress coincide on the syllable immediately preceding the person-number marker *-lar*, e.g. *Öğretménler* ‘They are teachers’. Compare the different accent patterns and meanings in the following examples. (1) *Gelenler kim? Öğretmenlér mi?* ‘Who are the ones coming (who have come)? Is that the teachers?’. (2) *Onlar ne iş yapıyorlar? Öğretménler mi?* ‘What is their profession? Are they teachers?’. The construction given in the conjugation in Table 2 contains the unaccented person-number marker in *-lar*. Johanson (1981) convincingly argues that there is an old distinction between these two *-lar* forms, which etymologically go back to different origins. He shows that an original enclitic element lies behind the person-number marker *-lar* and may have developed from a more complex structure containing a copular verb *är-* ‘to be’ in the aorist. Consequently, it would not be correct to attempt to explain the deviant order in the third person plural by simply arguing that *-lar* is a bound nominal suffix whereas the person-number markers for other persons are clitics. To sum up, I would like to point out that the position of the Q-clitic in the conjugation of third person plural might be worthy of further investigation.

In Turkish verbal predicates, the Q-clitic also appears in medial position except, as already mentioned, in combinations with past and conditional suffixes, e.g. *Gel-iyor mu-yum?* [come-PRES-Q-1SG], *Bil-ir mi-ydi?* [know-AOR-Q-PCOP3], *Al-acak mı-yız?* [take-PROS-Q-1PL], *Gör-müş mü-sünüz?* [see-PTER-Q-2PL].³ In third person plurals, the involved morphemes again have a deviant order, e.g. *Gel-iyor-lar mı?* [come-PRES-3PL-Q], *Al-acak-lar mı?* [take-PROS-3PL-Q], *Söyle-miş-ler mi?* [say-PTER-3PL-Q].

In standard Azeri, polar questions are typically marked either by a final positioning of the clitic or just by interrogative intonation without any formal marking (see Table 3).⁴ Verbal clauses exhibit the same characteristics, e.g. *Gel-ir-sän?* or *Gel-ir-sän-mi?* [come-PRES-2SG-Q], *Gözlä-yir-ik?* or *Gözlä-yir-ik-mi?* [wait-PRES-1PL-Q], *Yaz-ar-sünüz?* or *Yaz-ar-sünüz-mi?* [write-AOR-2PL-Q], *Yaz-ağak-sünüz?* or *Yaz-ağak-sünüz-mi?* [write-PROS-2PL-Q], etc. Note that placement of the interrogative element before the person-number and copular markers can sometimes be observed in spoken language, e.g. *Müəllim-mi-ydi-m?* [teacher-Q-PCOP-1SG], *Müəllim-mi-ydi-lär?* [teacher-Q-PCOP-3PL], etc.

3 Note that variations can be observed in some Turkish dialects, e.g. *Gel-ir-di-h mi?* ~ *Gel-ir mi-di-h?* or *Vuracağam mı?* ~ *Vuracah mıyam?* (Csató 2000).

4 The word ‘teacher’ corresponds to two different words in Azeri, which are copied from Arabic: *müəllim* ‘a male teacher’, *müəllimä* ‘a female teacher’. Table 3 only shows the conjugation of the masculine form *müəllim*. Tables 3–8 provide the conjugation of the lexeme ‘teacher’ in various languages, just as in Table 2.

As a result of long-term contact with Persian, the Q-clitic, which is characteristic of polar questions in almost all older and modern Turkic languages, has largely vanished in varieties spoken in Iran. Thus, Azeri spoken in Iran relies instead on distinctive, interrogative intonation (see Dehghani 2000: 208, Kırıl 2001: 63). Signaling polar questions just by employing suprasegmental means can be observed in some other contact varieties of Turkic too, such as Chuvash, Salar and Cypriot Turkish.

	Non-past copular clauses	Past copular clauses
1SG	(Män) müällim-äm? (Män) müällim-äm-mi?	(Män) müällim idi-m? (Män) müällim idi-m-mi?
2SG	(Sän) müällim-sän? (Sän) müällim-sän-mi?	(Sän) müällim idi-n? (Sän) müällim idi-n-mi?
3SG	(O) müällim-dir? (O) müällim-dir-mi?	(O) müällim idi? (O) müällim idi-mi?
1PL	(Biz) müällim-ik? (Biz) müällim-ik-mi?	(Biz) müällim idi-k? (Biz) müällim idi-k-mi?
2PL	(Siz) müällim-siniz? (Siz) müällim-siniz-mi?	(Siz) müällim idi-niz? (Siz) müällim idi-niz-mi?
3PL	(Onlar) müällim-dir-lär? (Onlar) müällim-dir-lär-mi?	(Onlar) müällim idi-lär? (Onlar) müällim idi-lär-mi?

Table 3: Occurrence of the Q-clitic in nominal predicates in standard Azeri

In Gagauz, variation between medial and final positioning is available, e.g. *Üüredici mi-yim?* [teacher-Q-1SG] or *Üüredici-yim mi?* [teacher-1SG-Q] ‘Am I a teacher?’, *Üüredici mi-ydi-m?* [teacher-Q-PCOP-1SG] or *Üüredici-ydi-m mi?* [teacher-PCOP-1SG-Q] ‘Was I a teacher?’ (Astrid Menz, p. c.). Example (1) illustrates the final occurrence of the clitic. The same variation also occurs in verbal predicates, e.g. *Gör-er-im mi?* [see-AOR-1SG-Q] or *Gör-er mi-yim?* [see-AOR-Q-1SG], *Gör-er-sin mi?* [see-AOR-2SG-Q] or *Gör-er mi-sin?* [see-AOR-Q-2SG], *Gör-er-iz mi?* [see-AOR-1PL-Q] or *Gör-er mi-yiz?* [see-AOR-Q-1PL], *Gör-er-siniz mi?* [see-AOR-2PL-Q] or *Görer mi-ysiniz?* [see-AOR-Q-2PL], while in the third person plural the Q-clitic occupies a final position, e.g. *Gör-er-lär mi?* [see-AOR-3PL-Q] (Özkan 2007: 124). The functional basis of this variation needs to be studied.

- (1) *Sän insan-sın mı osa hayvan-sın mı?* (Menz 1999: 27)
 you human-being-2SG Q or animal-2SG Q
 ‘Are you a human-being or an animal?’

In Turkmen, the use of a person-number marker is not necessary when the sentence contains an overt pronominal subject, e.g. *Men Türkmen* [I Turkmen] ‘I am a Turkmen’, *Sen Türkmen* [you Turkmen] ‘You are a Turkmen’, *Sen adam däl* [you human-being not] ‘You are not a human-being’. Thus, due to the lack of a person-

number marker, the interrogative element directly attaches to the predicate noun or adjective, e.g. *Men awçî-mi ya däl-mi?* *Men balıķçı-mi ya çarwa?* ‘Am I a hunter or not? Am I a fisher or a nomad?’ (Welsapar 2010: 15). In past copular clauses, the Q-clitic typically follows the copular marker and personal endings although its internal occurrence can sometimes be observed in spoken language (Table 4). The reason for this variation remains to be investigated. As for verbal predicates, final placement of the Q-clitic is typical:⁵ *Bar-ya:r-în-mi?* [go-PRES-1SG-Q] ‘Do I go?’, *Bar-ya:r-lar-mi?* [go-PRES-3PL-Q] ‘Do they go?’, *Bil-yä:r-θiη-mi?* [know-PRES-2SG-Q] ‘Do you know?’, *Yaz-yan-dîr-is-mi?* [write-PART-COP-1PL-Q] ‘Are we maybe writing?’, *Yaz-amok-mu?* [write-NEG.PTER.1SG-Q] ‘Haven’t I written?’, *Yaz-maz-dî-m-mi?* [write-NEG.AOR-PCOP-1SG-Q] ‘Didn’t I used to write?’, *Yaz-ma-yar-dî-k-mi?* [write-NEG-PRES-PCOP-1PL-Q] ‘Weren’t we writing?’, *Ayt-ja-k-dî-k-mi?* [say-PROS-PCOP-1PL-Q] ‘Had we intended to say?’, etc. (Clark 1998: 582–637; Kara 2007: 267).

	Non-past copular clauses	Past copular clauses
1SG	<i>Men muýallim-mi?</i>	<i>Men muýallim-dî-m-mi?</i> <i>Men muýallim-mi-dî-m?</i>
2SG	<i>Sen muýallim-mi?</i>	<i>Sen muýallim-dî-η-mi?</i> <i>Sen muýallim-mi-dî-η?</i>
3SG	<i>Ol muýallim-mi?</i>	<i>Ol muýallim-dî-mi?</i> <i>Ol muýallim-mi-dî?</i>
1PL	<i>Biz muýallim-(lar)-mi?</i>	<i>Biz muýallim-(lar)-dî-k-mi?</i> <i>Biz muýallim(lar)-mi-dî-k?</i>
2PL	<i>Siz muýallim-(lar)-mi?</i>	<i>Siz muýallim-(lar)-dî-ηiz-mi?</i> <i>Siz muýallim-(lar)-mi-dî-ηiz?</i>
3PL	<i>Olar muýallim-(lar)-mi?</i>	<i>Olar muýallim-(lar)-dî-mi?</i> <i>Olar muýallim-mi-dî-(lar)?</i>

Table 4: Occurrence of the Q-clitic in nominal predicates in Turkmen

In Karachay-Balkar, a Kipchak Turkic language spoken in the Northern Caucasus, the Q-clitic is usually placed before the person-number or copular markers (see Pritsak 1959: 366), e.g.: *Siz xalk-mi-siz?* [you people-Q-2PL] ‘Are you people?’, *Žok-mu edi?* [not existent-Q-PCOP] ‘Wasn’t there?’, *Sen-mi edi-η?* [you-Q-PCOP-2SG] ‘Was it you?’, *Sen tül-mü edi-η?* [you not-Q-PCOP-2SG] ‘Was it not you?’, *Bar-mi-di?* [existent-Q-3SG] ‘Is there?’, *Köz-ler-im kör-me-y-mi edi-le?* [eye-PL-POSS1SG see-NEG-PRES-Q-PCOP-3PL] ‘Didn’t my eyes see?’, *Kel-mez-mi edi-η?* [come-NEG.AOR-Q-PCOP-2SG] ‘Wouldn’t you come?’. There is variation in some verbal predicates, e.g. *Kör-gen-mi edi-η?* [see-PTER-Q-PCOP-2SG] or *Kör-gen edi-η-mi?* [see-PTER-PCOP-

5 It should be noted that modal particles such as *-KA* in Turkmen or *eken* in Noghay, Kazakh and Kirghiz are placed after the Q-clitic. (For the order of the Q-clitic and *eken* in Noghay, see Karakoç 2005: 25–31.)

2SG-Q] ‘Had you seen?’ Referring to Baskakov (1976), Csátó remarks that the final placement of the Q-clitic indicates that “the speaker questions the truth of the proposition: ‘Is it really true that [proposition]?’” In this case, if the clitic precedes the past copula, the verb is questioned (Csátó 2000). This observation needs to be investigated thoroughly in further research.

Noghay, another Kipchak Turkic language in the Northern Caucasus, differs from Karachay-Balkar by final placement of the Q-clitic in nominal predicates; see Table 5. The same is also true for verbal predicates; see example (2). Note that the final *siz* in this example is not the person-number marker but the syntactic subject of the sentence. The person-number marker *siz* is placed prior to the Q-clitic *be*.

	Non-past copular clauses	Past copular clauses
1SG	(Men) <i>oġutuwwşı-man-ma?</i>	(Men) <i>oġutuwwşı edi-m-me?</i>
2SG	(Sen) <i>oġutuwwşı-siŋ-ma?</i>	(Sen) <i>oġutuwwşı edi-ŋ-me?</i>
3SG	(Ol) <i>oġutuwwşı-ma?</i>	(Ol) <i>oġutuwwşı edi-me?</i>
1PL	(Biz) <i>oġutuwwşı-miz-ma?</i>	(Biz) <i>oġutuwwşı edi-k-pe?</i>
2PL	(Siz) <i>oġutuwwşı-siz-ma?</i>	(Siz) <i>oġutuwwşı edi-ŋiz-be?</i>
3PL	(Olar) <i>oġutuwwşı-lar-ma?</i>	(Olar) <i>oġutuwwşı edi-ler-me?</i>

Table 5: Occurrence of the Q-clitic in nominal predicates in Noghay

- (2) *Tis awıruw-dıŋ ne zat eken-i-n*
tooth ache-GEN what thing EKEN.COP-POSS3SG-ACC
bil-e-siz-be siz?
know-PRES-2PL-Q you
‘Do you know what it is to have toothache?’

In Kazakh as spoken in China, the Q-clitic follows the person-number markers in non-past copular clauses, whereas in past copular clauses it receives an interior position by being placed before the copular marker ^y*edi*. In Kazakh as spoken in Kazakhstan, however, the clitic typically follows the person-number and copular markers; see Table 6. This difference between the varieties is also present in verbal predicates, e.g. *Bar-atın ba ediŋ?* [go-HAB-Q-PCOP-2SG], *Kel-me-ytin be ediŋ?* [come-NEG-HAB-Q-PCOP-2SG], *Bar-ıwşı ma ediŋ?* [go-HAB-Q-PCOP-2SG], *Kel-me-wşı me ediŋ?* [come-NEG-HAB-Q-PCOP-2SG], (Kazakh as spoken in China) (Zhang 2004: 372, 376); *Men žaz-a-mın ba?* [I write-PRES-1SG-Q] ‘Do I write?’, *Kel-ežatır-siŋ ba?* [come-FOC.PRES-2SG-Q] ‘Are you coming?’ (Kazakh as spoken in Kazakhstan).

	Non-past copular clauses	Past copular clauses	
		(Kazakh in China)	(Kazakh in Kazakhstan)
1SG	<i>Muƣalim-min be?</i>	<i>Muƣalim be^yedı-m?</i>	<i>Muƣalim^yedı-m be?</i>
2SG	<i>Muƣalim-siŋ be?</i>	<i>Muƣalim be^yedı-ŋ?</i>	<i>Muƣalim^yedı-ŋ be?</i>
	<i>Muƣalim-siz be?</i>	<i>Muƣalim be^yedı-ŋiz?</i>	<i>Muƣalim^yedı-ŋiz be?</i>
3SG	<i>Muƣalim be?</i>	<i>Muƣalim be^yedı?</i>	<i>Muƣalim^yedı me?</i>
1PL	<i>Muƣalim-biz be?</i>	<i>Muƣalim be^yedı-k?</i>	<i>Muƣalim^yedı-k pe?</i>
	<i>Muƣalim-siŋder me?</i>	<i>Muƣalim be^yedı-ŋder?</i>	<i>Muƣalim^yedı-ŋder me?</i>
2PL	<i>Muƣalim-sizder me?</i>	<i>Muƣalim be^yedı-ŋizder?</i>	<i>Muƣalim^yedı-ŋizder me?</i>
	<i>Olar muƣalim be?</i>	<i>Olar muƣalim be^yedı?</i>	<i>Olar muƣalim^yedı me?</i>

Table 6: Occurrence of the Q-clitic in nominal predicates in Kazakh

The Kirgiz system in nominal predicates is similar to the system of Kazakh as spoken in China; see Table 7. In verbal predicates, the clitic usually takes the last slot, e.g. *Sen šaarya bar-a jata-siŋ-bi?* [you city-DAT go-FOC.PRES-2SG-Q] ‘Are you going to the city?’, *Kel-e jata-m-bi?* [come-FOC.PRES-1SG-Q] ‘Am I coming?’, *Oƣu-p jürö-mün-bü?* [read-FOC.PRES-1SG-Q] ‘Am I reading?’, *Kör-ö-süzdör-bü?* [see-PRES-2PL-Q] ‘Are you seeing?’, *Tap-ar-siŋ-bi?* [find-AOR-2SG-Q] ‘Will (can) you find?’, *Kel-iş-e-bi?* [come-3PL-PRES-Q] ‘Are they coming?’, etc.

	Non-past copular clauses	Past copular clauses
1SG	<i>Muƣalim-min-bi?</i>	<i>Muƣalim bele-m?</i>
2SG	<i>Muƣalim-siŋ-bi?</i>	<i>Muƣalim bele-ŋ?</i>
	<i>Muƣalim-siz-bi?</i>	<i>Muƣalim bele-ŋiz?</i>
3SG	<i>Muƣalim-bi?</i>	<i>Muƣalim bele?</i>
1PL	<i>Muƣalim-biz-bi?</i>	<i>Muƣalim bele-k?</i>
	<i>Muƣalim-siŋer-bi?</i>	<i>Muƣalim bele-ŋer?</i>
2PL	<i>Muƣalim-sizder-bi?</i>	<i>Muƣalim bele-ŋizder?</i>
	<i>Alar muƣalim-bi?</i>	<i>Alar muƣalim bele?</i>

Table 7: Occurrence of the Q-clitic in nominal predicates in Kirghiz

In Uyghur, in non-past copular clauses, since the person-number marker is usually absent, the clitic *-mu* directly attaches to the nominal predicate. In past copular clauses, it follows the copular form *idi* and fills the last slot in the predicate; see Table 8. It needs to be mentioned that predicate-internal occurrence can be observed in spoken registers, e.g. *Sän oƣutƣuči-mi-di-ŋ?* [you teacher-Q-PCOP-2SG], *Siz oƣutƣuči-mi-di-ŋiz?* [you teacher-Q-PCOP-2PL], *U oƣutƣuči-mi-di?* [(s)he teacher-Q-PCOP], *Silär oƣutƣuči-mi-di-ŋ-lar?* [you.PL teacher-Q-PCOP-2PL], etc. The nature of this variation in spoken registers needs further study.

	Non-past copular clauses	Past copular clauses
1SG	<i>Män oqutquči-mu?</i>	<i>Män oqutquči idi-m-mu?</i>
2SG	<i>Sän oqutquči-mu?</i> <i>Siz oqutquči-mu?</i>	<i>Sän oqutquči idi-η-mu?</i> <i>Siz oqutquči idi-ηiz-mu?</i>
3SG	<i>U oqutquči-mu?</i>	<i>U oqutquči idi-mu?</i>
1PL	<i>Biz oqutquči-mu?</i>	<i>Biz oqutquči idu-ķ-mu?</i>
2PL	<i>Silär oqutquči-mu?</i>	<i>Silär oqutquči idi-η-lar-mu?</i>
3PL	<i>Ular oqutquči-mu?</i>	<i>Ular oqutquči idi-mu?</i>

Table 8: Occurrence of the Q-clitic in nominal predicates in Uyghur

4. Sentential positions

Concerning syntactic positions of the Q-clitics following patterns have been found:

- Pattern 1 Q follows the focused constituent in a sentence (movement)
Pattern 2 Q only occurs after the predicate (fixed position)

Table 9: Sentential positions of the Q-clitic

It is well known that, in Turkish, a sentence such as *Hasan bugün otobüs-le Ankara-dan İstanbul-a git-ti* [Hasan today bus-INST Ankara-ABL İstanbul-DAT go-PAST3] ‘Hasan rode the bus from Ankara to İstanbul today’ can be transformed into a polar question (*Did Hasan ride the bus from Ankara to İstanbul today?*) in a variety of ways depending on the different information structures. As can be seen in the possible polar questions in (3a–f), the sentence constituent that will be the syntactic focus carries the Q-clitic. In other words, the Q-clitic can freely move around the sentence, and each syntactic constituent capable of being the focus can take this element (see Kamali 2015). It needs to be remarked that *mI* itself is not accented, but the last syllable of the word immediately preceding *mI* gets a strong high-pitch accent (see Kamali 2014).

- (3) a. *Hasan mı* [Hasan-FOCUS] *bugün otobüs-le Ankara-dan İstanbul-a git-ti?*
b. *Hasan bugün mü* [today-FOCUS] *otobüs-le Ankara-dan İstanbul-a git-ti?*
c. *Hasan bugün otobüs-le mi* [by bus-FOCUS] *Ankara-dan İstanbul-a git-ti?*
d. *Hasan bugün otobüs-le Ankara-dan mı* [from Ankara-FOCUS] *İstanbul-a git-ti?*
e. *Hasan bugün otobüs-le Ankara-dan İstanbul-a mı* [to İstanbul-FOCUS] *git-ti?*
f. *Hasan bugün otobüs-le Ankara-dan İstanbul-a git-ti mi?* [polarity in focus]

Both in declarative and interrogative sentences, a focused constituent receiving special emphasis in the form of an extra high pitch range can optionally be brought closer to the predicate, i.e. occupy the pre-predicative position (see Johanson, to appear, Kılıçaslan 2004, Sato 2009, Özge & Bozşahin 2010, Kamali 2014), e.g.:

- (4) a. *Hasan bugün mü* [today-FOCUS] *otobüs-le Ankara-dan İstanbul-a git-ti?*
 b. *Hasan otobüs-le Ankara-dan İstanbul-a bugün mü* [today-FOCUS] *git-ti?*

The situation is similar in standard Azeri. The clitic can move and attach to the focused constituent. However, as already mentioned, in the Azeri spoken in Iran, which lacks the clitic, the focus of an interrogative utterance is simply highlighted by means of special intonation.

In Turkmen, the interrogative clitic is typically associated with the nominal or verbal predicate of a sentence. Subject or object constituents, like adverbial constituents, do not seem to carry this element. Thus, in contrast to Turkish, the focused constituent is not marked by the Q-clitic, but instead is brought to pre-predicative position with accompanying suprasegmental features; see examples (5–8). Example (8) is taken from a Turkmen novel also available in Turkish translation. It is interesting to observe that the translator changes the position of the Q-clitic in the corresponding Turkish sentence. Thus, the clitic is placed after the direct object *akrabam* ‘my relative’ in the Turkish translation, whereas it is hosted by the predicate *diydim* ‘I said’ in the Turkmen original.

- (5) *Duldegşir goňşu-lar-ıň-a* “*biz-e* *gel-mä-ň,*
 near neighbor-PL-POSS2SG-DAT we-DAT come-NEG-IMP
biz-ij *gapı-miz-dan* *ğara-ma-ň!”*
 we-GEN door-POSS1PL-ABL look-NEG-IMP
di-yjek-mi? (Welsapar 2010: 11)
 say-PROS-Q
 ‘Will you say to your close neighbors: “Don’t come to us, don’t look into our door!”’
- (6) *Ağla-malī eňre-meli-mi,* *ähli iş-ler-in-i* *taşla-p,*
 cry-NEC sob bitterly-NEC-Q all work-POSS3PL-ACC abandon-CONV
ömür-ler-in-i *arza şikayat bilen geçir-meli-mi?* (Welsapar 2010: 50)
 life-POSS3PL-ACC petition complaint with spend-NEC-Q
 ‘Shall they cry and sob bitterly? Shall they abandon all their works and spend their life in petition and complaint?’
- (7) *Biz-e* *bular-ıň daşkı görnüş-i* *gerek,*
 we-DAT these-GEN outer appearance-ACC necessary
ğal-an *zad-ın-ı* *baş-ımız-a*
 remain-PART thing-POSS3SG-ACC head-POSS1PL-DAT
yapalı-mı? (Welsapar 2010: 53)
 cover-NEC-Q
 ‘We need their outer appearance, what shall we do with other things? [lit. shall we cover our heads with things remained?]

- (8) "Ġarındaş-ş-īm" diy-di-m-mi? (Welsapar 2002: 270)
 relative-POSS1SG say-PAST-1SG-Q
 Turkish translation: 'Akrabam mı dedim?' (Welsapar 2014: 464)
 'Did I say "my relative"?'

In Karachay-Balkar, the Q-clitic is able to move freely and join different syntactic constituents; see examples (9–12):

- (9) /.../ ne zat-nĩ: mal-nĩ-mĩ, ĵer-ni-mi oýese
 what thing-ACC goods-ACC-Q land-ACC-Q or
 ašxĩ kiyim-le-ni-mi koy-ayĩm men saýa? de-di.
 beautiful cloth-PL-ACC-Q give-OPT1SG I you-DAT say-PAST3
 '.../ "What shall I give to you? Shall I give goods, land or beautiful cloth" he said.'
- (10) Ne-di bu et-gen-iñ? Adam-la-nĩ ċasaw-larĩ
 what-COP this do-PART-POSS2SG people-PL-GEN life-POSS3PL
 bla oyna-r umut-uñ-mu bar-dĩ?
 with play-PART hope-POSS2SG-Q existent-3SG
 'What is that you did? Do you intend to play with people's life?'
- (11) Sen anĩ káydán bil-e-se? Attya-mĩ ayt-xan-dĩ?
 you this-ACC from where know-PRES-2SG dad-Q say-PTER-3SG
 'How do you know it? Has dad said it?'
- (12) Aliman bla da alay bol-du.
 A. with also so become-PAST3
 Oýese maýa alay-mĩ körün-dü?
 or I-DAT so-Q appear-PAST3
 'It also became like that with Aliman. Or, did it maybe appear like that to me?'

The Q-clitic in Noghay is typically hosted by the predicate. The focused constituent, which is not marked by the Q-clitic, occupies the pre-predicative position as a rule. Consider examples (13–15), which are taken from an anthology of Noghay texts with their Turkish translations. When comparing the Noghay originals with their translations, it is interesting to observe yet again that the translator needs to change the position of the Q-clitic in the corresponding Turkish sentences.

- (13) Men-im ata-m Aqmırza-dıñ kôz-i-n
 I-GEN father-POSS1SG A-GEN eye-POSS3-ACC

Kırım xan şıyar-γa-ma? de-y-di.

K. khan take out-PTER-Q say-PRES-3SG

Turkish translation: 'Benim atam Akmirza'nın gözünü Kırım Hanı mı çıkardı? diye sorar.' (Kösoğlu 2002: 34)

'Did Kırım's Khan take out my father Akmirza's eye, he asks.'

- (14) *Endi sen men-nen usta bol-ayaq*
now you I-ABL skilled become-PROS
bol-a-siñ-ma?
be-PRES-2SG-Q

Turkish translation: 'Şimdi sen benden daha mı usta olacaksın?' (Kösoğlu 2002: 29)

'Do you think that you will be more skilled than me.'

- (15) *Sen balıq äkel-gen-siñ-me?*
you fish bring-PTER-2SG-Q
de-y-di xatün-i.
say-PRES-3SG wife-POSS3

Turkish translation: 'Sen balık mı alıp geldin? der hanımı.' (Kösoğlu 2002: 134)

'Did you bring fish, his wife asks.'

In Kirghiz polar questions, the predicate is the constituent in a sentence which typically hosts the Q-clitic; see examples (16–18).

- (16) *Sen bugün mektep-ke bar-a-siñ-bi?*
you today school-DAT go-PRES-2SG-Q
'Are you going to school today?'

- (17) *Al eki žıl-dan kiyin Amerika-γa ket-e-bi?*
(s)he two year-ABL after America-DAT go-PRES-Q
'Is he going to America in two years?'

- (18) *Kečki tamaq-ti segiz-de iç-e-siñ-bi?*
dinner-ACC eight-LOC drink-PRES-2SG-Q
'Do you have dinner at 8 o'clock?'

The Kazakh clitic *MA* also has a fixed position after the predicate. The focused constituent usually occupies the pre-predicative position, as well as being highlighted with high pitch accent. Compare the Kazakh examples given in (19a–f) with the corresponding Turkish examples in (3a–f).

- (19) a. *Bügün aptoboz-ben Ankara-dan Istanbul-ğa Asan* [Asan-FOCUS] *ket-ti me?*
 b. *Asan aptoboz-ben Ankara-dan Istanbul-ğa bugün* [today-FOCUS] *ket-ti me?*
 c. *Asan bugün Ankara-dan Istanbul-ğa aptoboz-ben* [by bus-FOCUS] *ket-ti me?*
 d. *Asan bugün aptoboz-ben Istanbul-ğa Ankara-dan* [from Ankara-FOCUS] *ket-ti me?*
 e. *Asan bugün aptoboz-ben Ankara-dan Istanbul-ğa* [to Istanbul-FOCUS] *ket-ti me?*
 f. *Asan bugün aptoboz-ben Ankara-dan Istanbul-ğa ket-ti me?* [polarity in focus]

In Uyghur, the interrogative element *-mu* takes sentence-final position and the constituent that is asked about can move to the pre-predicative position while receiving special intonation. Compare the Uyghur examples in (20a–f) with the corresponding Turkish examples in (3a–f) and the Kazakh examples in (19a–f). Yakup (2013: 464) remarks: “The reason for prohibiting *mu* in non-final position in Uyghur is not very clear. Perhaps prevention from confusing with the homophonic emphatic or intensifying clitic *mu* that usually denotes ‘too, also, as well’ etc. might be one of the main reasons, since the emphatic clitic *mu* occurs after every position other than the sentence-final position.” Consider the example in (21), which possesses these two *mu* forms. The first *mu* following *bügün* ‘today’ means ‘too, also, as well’ whereas the second *-mu* after the predicate *kätti* is a Q-clitic.

- (20) a. *Bügün aptubuz bilän Äñkä-rä-din Istanbul-ğa Häsän* [Häsän-FOCUS] *kät-ti-mu?*
 b. *Häsän aptubuz bilän Äñkä-rä-din Istanbul-ğa bugün* [today-FOCUS] *kät-ti-mu?*
 c. *Häsän bugün Äñkä-rä-din Istanbul-ğa aptubuz bilän* [by bus-FOCUS] *kät-ti-mu?*
 d. *Häsän bugün aptubuz bilän Istanbul-ğa Äñkä-rä-din* [from Ankara-FOCUS] *kät-ti-mu?*
 e. *Häsän bugün aptubuz bilän Äñkä-rä-din Istanbul-ğa* [to Istanbul-FOCUS] *kät-ti-mu?*
 f. *Häsän bugün aptubuz bilän Äñkä-rä-din Istanbul-ğa kät-ti-mu?* [polarity in focus]
- (21) *Häsän bugün mu aptubuz bilän kät-ti-mu?*
 H. today too bus with go-PAST3-Q
 ‘Did Häsän ride by bus today too?’

Table 10 summarizes the results concerning the sentential positions of the Q-clitics in the languages investigated so far.

	Free movement	Fixed position after the predicate	Zero marker; intonation
Turkish	x		
Standard Azeri	x		x
Azeri spoken in Iran			x
Turkmen		x	
Karachay-Balkar	x		
Noghay		x	
Kirghiz		x	
Kazakh		x	
Uyghur		x	

Table 10: Sentential positions of the Q-clitics

5. Summary, prospects and questions for further research

As we have seen, the situation in the modern Turkic languages discussed so far is complex. It is not easy to identify any clear-cut distribution of the patterns in terms of genealogical or geographical relations of the languages, even if we can conclude some general tendencies. (1) Turkish has a special status within the Oghuz Turkic branch since both the internal positioning in predicates and the free syntactic movement are typical for the Q-clitic in this language. (2) As for the other Oghuz languages, the position of this element is shaky in Gagauz, whereas it mainly occupies a final slot in Standard Azeri. (3) The characteristics of the Q-element in Karachay-Balkar, a Kipchak Turkic language spoken in Northern Caucasus, are by and large similar to those in Turkish. On the contrary, Turkmen, an Oghuz language spoken in Central Asia, is largely similar to Central Asian Kipchak languages in terms of the properties of this element. (4) In the given languages, the internal positioning of the Q-clitic within predicates and its combinability with different sentence constituents (syntactic movement) seem to a certain extent to be related to one another, whereas there is a correspondence between the final positioning in predicates and the syntactically fixed predicative position. (5) Loss of a morphosyntactic element and signaling polar questions by means of special interrogative intonation are contact-induced phenomena in some Turkic languages, such as Oghuz varieties spoken in Iran.

Many questions could not be pursued further in the present paper, the main aim of which was to give an overview of the current situation. In order to gain a more complete and detailed picture, the following issues should be thoroughly considered in further research.

The other modern Turkic languages that could not be analyzed here, especially those of the Siberian branch, also need to be studied. The paper has only discussed the situation in standard dialects of the various languages, but consideration of non-standard dialects also seems to be crucial.

To answer some of the questions it will be necessary to adopt a diachronic perspective by providing an analysis of historical development.

The main focus of the paper is positions of the Q-clitic in nominal predicates (past and non-past copular clauses). To obtain a more complete picture, morphosyntactic patterns in verbal predicates, i.e. in combination with different verbal suffixes, need to be surveyed separately.

The nature of interrogative intonation in languages where the Q-clitic has a fixed position after the predicate needs to be scrutinized.

Below, I point out some questions for further research:

How can we explain different behaviors of the Q-clitic (i.e. syntactically free versus fixed, final placement) in modern languages? What are the historical reasons for them? To what extent might language-contact or areal characteristics have played a role?

To what extent can the variation within a system be explained by a dichotomy of spoken or written registers?

An anonymous reviewer of the abstract version of this paper (Karakoç 2014) commented: “The reason for the Noghay and Turkmen order is, of course, analogy from inflectional person marking as in *gel-di-n mi?*”. Is this really the only explanation? Can the final positioning be explained simply by analogy? To what extent does analogy play a role in the development of particular patterns?

What do we know about the role of prosody in the development of different patterns, e.g. *gelecek miyim* versus *gelece:m mi* in spoken Turkish?

How is the functional opposition to be understood when medial and final positioning in predication occur side by side within one system?

Consideration of the scope of clausal operators is crucial for the typology of Turkic languages. What aspects are important to consider regarding the scope properties of the respective elements (Csató 2000)?

What parameters might be important to apply in order to clearly distinguish between varying scope properties, echo-questions and contexts of irony and surprise, for instance Turkish *anlamıyorum mu sanıyorsun?*, *yaparım mı demek istiyorsun?*, etc.

Abbreviations

1	First person	FOC.PRES	Focal present
2	Second person	GEN	Genitive
3	Third person	IMP	Imperative
ABL	Ablative	NEC	Necessitative
ACC	Accusative	NEG	Negation
AOR	Aorist	OPT	Optative
CONV	Converb	PART	Participle
COP	Copula	PAST	Past tense
DAT	Dative	PCOP	Past copula
FOCUS	Focus	PL	Plural

POSS	Possessive	Q	Interrogative clitic
PRES	Present	SG	Singular
PROS	Prospective	PN	Person-number marker
PTER	Postterminal		

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Two particles modifying questions in Turkmen: -Ay and -KA

Sema Aslan Demir

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This paper discusses the modifying functions of two Turkmen morphemes -KA [-qa:/-kä:] and -Ay [-a:y/-ä:y]. When added to the predicate of an interrogative sentence, these morphemes contribute to the meaning by conveying semantic notions of epistemic modality such as speculative epistemic possibility, predictive hypothetical content, dubitation, etc. Among these two markers, -KA is remarkable because it also can be inflected for person and number. Both the semantic and morphosyntactic features of these morphemes are analyzed.

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0. Introduction

Turkmen belongs to the South-Western group of Turkic languages and is the official language of Turkmenistan. It is also spoken in Iran, Afghanistan, Uzbekistan, and Tajikistan, as well as in some regions of the northern Caucasian area. This paper will discuss the contribution of the morphemes -KA [-ka, -kä] and -Ay [-ay, -äy] to the semantics of questions. These two morphemes affect the content of questions by adding particular semantic values such as skepticism, speculation, possibility, likelihood, etc. Thus, interrogative sentences marked by these morphemes convey certain epistemic nuances. Epistemic possibility expresses the speaker's judgment about the truth-value, suggesting that the proposition may possibly be true (Johanson 2009: 493). In the present paper, the morphemes in question will also be discussed in relation to their semantic interaction with other morphemes. The data used in the paper are collected from Turkmen narrative texts; see the list of sources at the end of the article. Examples are given in the current official script of Turkmenistan. Because some striking phonetic features of Turkmen, such as vowel lengths, interdental fricatives, and labial harmony, are not marked in the standard orthography, the pronunciation of the examples will also be given between slashes.

1. Modification of speculative questions

Interrogative words, clitics, prosody, and the syntactic organization of the sentence all can play a role in the formation of questions. Questions in which a speaker asks for information are generally called information-seeking questions. But the questions that I will focus on here are not information-seeking questions in the canonical sense; rather, they are speculative questions which can be asked even if the speaker knows that the interlocutor may not be able to provide an answer (Sperber and Wilson 1988). The morphemes in question, *-KA* and *-Ay*, cannot be used as the only means to build questions; instead, their function is to modify the meaning of questions by adding a speculative or dubitative nuance. These types of questions serve two linguistic aims simultaneously: they seek an answer, and at the same time express suspicion, speculative possibility or hesitation. By including such semantic contents, unlike the canonical ones, these types of questions not only ask for information but also investigate the epistemic possibility of the truth of the proposition. That is to say, they are more than just pure questions.

Questions differ from statements in an important way: A statement is sometimes true, sometimes false—but a question is neither true nor false (Hagstrom 2003: 187). From this point of view, a question cannot have an epistemic value. However, some semantic values such as doubt, disbelief, hesitation, etc., expressed by means of some linguistic items, can mark epistemic content. Questions can express attitudes held by the questioner such as surprise, disbelief, sarcasm, etc. (Kearsley 1976: 356). Thus, the way of asking can reflect a speaker's degree of confidence in the truth of the proposition being asked about. Speakers might already anticipate the truth value of the proposition. When designing a question, the choice of linguistic devices may signal the speaker's attitude towards the truth value of the proposition.

2. The morpheme *-Ay*

The following examples illustrate the usage of the morpheme *-Ay*.

- (1) *Gije çatmany otlaýsalar?*
 night house-ACC burn-AY.MOD-HYP-3PL
 /Gi:je çatma:nı o:ta:yθalar/
 'What if they will burn the house at night?' (G. 36)
- (2) *Sen ýalňyş hasaplaýan bolaýma?*
 you wrong calculate-PTCP be-AY.MOD-NEG.IMP.2SG
 /θen yañliş haθaplaya:n bola:yma?/
 'And what if you have miscalculated?' (P. 634)

- (3) *Şol adam sen bolayma?*
 DEM man you be-AY.MOD-NEG.IMP. 2SG
 /Şol a:dam θen bola:yma?/
 ‘And what if you are that man?’ (P. 419)

In examples 1 and 2, unlike in canonical questions, there are no interrogative words such as *kim* ‘who’, *nä:me* ‘what’, *nä:če* ‘how many’, *haysi* ‘which one’, *nä:hi:li* ‘how, what kind of’, etc., and the question marker *-mX* is not used. Still, one can obtain an interrogative-like meaning at a pragmatic level. In narrative texts, authors usually put a question mark at the end of such sentences. Such questions express that the proposition (P) is being evaluated by the speaker with regard to its truth value or possibility. The speaker examines the possibility of a hypothetical proposition by asking both himself and his hearer. Thus, the truth of the proposition is questioned. In such questions, asking and predicating are intertwined. The *-Ay* morpheme takes part in the formation of the question-like meaning by coding speculative possibility. Thereby, a semantic output like [P+possibility]+query is gained. In example 1, *-sA* is a hypothetical marker and *-Ay+-sA* produces a more hypothetical meaning, which allows speculating about a hypothetical situation. In examples 2 and 3, the negation marker *-mA* also plays an important role. In these examples, *-mA* does not mark a standard negation. Instead of negating the verb entirely, it produces a low-grade possibility. In the epistemic frame, *-Ay+-mA* conveys the speaker’s doubt about the truth value of a hypothetical situation.

3. Morphosyntactic position of *-Ay*

Another essential point about *-Ay* is its morphosyntactic position in verbal conjugation. *-Ay* comes immediately after the verb stem and before the markers of tense, aspect, modality, negation and verbal noun; see example 4. By marking modal meanings *-Ay* behaves as if it were an inflectional suffix, because in Turkic languages modal markers are verbal inflectional items. However, as stated in Söjegov (2000: 545), the morphosyntactic position it occupies is normally shared by derivational suffixes. But unlike derivational items, *-Ay* does not create a new lexical item.

- (4) *Gid-äy-di-mi-kä?*
 go-AY.MOD-PAST.3SG-Q.PART- DUB.PART
 /gidä:ydimikä:/
 ‘I wonder if he went.’

Gör-äy-meli.
 see-AY.MOD-NESS.3SG
 /göra:ymeli/
 ‘It is worth seeing.’

Getir-äý-se?
 bring-AY.MOD-HYP.3SG
 /getirä:yθe/
 ‘What if he brings (it)?’

gel-äý-mek
 come-AY.MOD-VN
 /gelä:ymek/
 ‘possibility of coming’

Ýalňys-aý-maýyn
 be mistaken-AY.MOD-NEG.VOL.1SG
 /yaňlyşa:yma:yïn/
 ‘What if I am mistaken?’

The morpheme *-Ay* is called a “modal particle” or “modal affix” by Baskakov et al. (1960: 292), and Söjegov et al. (2000: 283), and a “suffix of permission” by Clark (1998: 297). In addition to speculative possibly, *-Ay* can mark volitional notions in the directive sense. Clark explains the functions of *-Ay* as follows: “In combination with mood and other suffixes, this suffix contributes to the formation of new meanings that are related to permission, such as suggestion, advice, insistence, caution, and premonition” (1998: 297). At this point, two questions arise: (i) How can a modal morpheme occupy such a morphosyntactic position, and (ii) if *-Ay* came into being as a result of a grammaticalization process, what kind of (lexical) source could it be traced back to? In other words, what kind of pre-modal meaning can allow such a semantic function to mark new meanings such as possibility, potentiality, permission, suggestion, advice, insistence, etc., in accordance with its morphological environment?

4. From which source?

The morphosyntactic position occupied by *-Ay* supports the idea that it must be grammaticalized from a postverbal construction, i.e. the combination of a verbal lexeme appearing in a converbial form with a following desemanticalized auxiliary (Johanson 2000: 55). For instance, the Turkish postverbal form *-ebil-*, which can mark modal meanings such as ability, possibility, and permission, can occupy the same morphosyntactic position, e.g., *gelebildi* {come-MOD-PAST.3SG}, *gelebilsen* {come-MOD-HYP.3SG}, *gelebilmek* {come-MOD-VN}, etc.

Turkmen grammars and linguistic studies offer some ideas about the lexical source from which the *-Ay* morpheme might be grammaticalized. A strong hypothesis is that it developed from *-A+γoy-* {CONV + to put-} (Annanurov 1977: 70, Söjegov et al. 1999: 544). Even though such a semantic path from a lexical item meaning

‘to put’ to a modal meaning including possibility, volition, permission etc. can appear fuzzy at first sight, it is possible to find phonetically intermediate variants of this postverbal form in Turkmen dialects, some of which observe labial harmony. Such a chain of variants makes it worth considering the possibility of this semantic path. In the *Arabači* dialect of Turkmen, there is a modal marker in *-aγoy-* which functions similarly to *-Ay* in standard Turkmen, e.g. *Mo:lla Türkmen ketde bolayoymaθa* ‘And what if that mullah is a Turkmen elder?’ (Mavyjev 1987: 62). In the *Garadašli* dialect, there are different phonetic variants of *-A+γoy-* such as *-aγoy-*, *-eγoy-*, *-oγoy-*, *-aγay-*, *-aγa-*, *-a:/-ä:*, etc. These forms usually indicate ‘suddenness or rapid action’, ‘keeping on doing something’ or ‘doing something with ease to the benefit of someone’, e.g. *ğoyoyoy yerde* ‘keep it on the ground’, *yetmiş gıra:m gıyaya* ‘just put seventy grams (with ease)’, *geleyayya:mün* ‘I’m just coming’ (Ak-mämmedov 1975: 77). In the *Kayı* variant of *Gökley* *-aγoy-*, *-owoy-*; in *Cowdur*, *Čeres*, *Eski*, *Ersari* and *Sariq* dialects *-a:γay-*, *-yaγay* and also *-(y)ay*; in the *Gerkez* variant of *Gökley* and the *Demirgaziq* variant of *Yomut* *-aγa-*; in some variants of *Yomut* and *Sariq* *-a:* exists. The *-a:y/-ä:y* form is common in standard Turkmen (Amansaryjev 1970: 357). These allomorphs indicate different stages of the material erosion characterizing grammaticalization processes. Thus, the postverbal construction *-A+γoy-* has probably undergone a grammaticalization path as explained by Amansaryjev, i.e. *-aγoy-* > *-aγay-* > *-a:y->-a:-* (1970: 357).

5. A possible semantic map

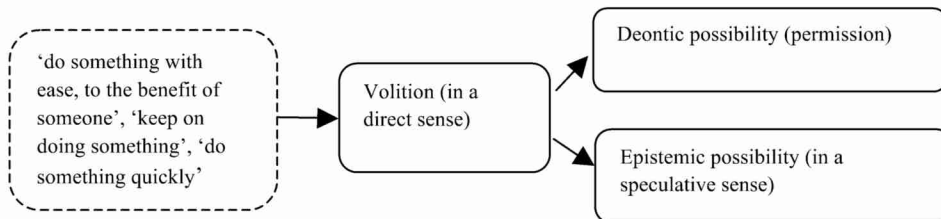
In this section, the probability of a semantic development of the postverbal construction *-A+γoy-* meaning ‘to do something with ease to the benefit of someone’ or ‘sudden or rapid action’ to a grammaticalized particle indicating speculative epistemic possibility will be checked. A semantic map is a representation of meanings or uses and their relations (Auwera & Plungian 1998: 86). Semantic mapping is a method for describing and illuminating the patterns of multifunctionality of grammatical morphemes (Haspelmath 2003: 212). In some papers focusing on the semantic maps of modality, a semantic path to epistemic possibility is indicated as in the following: participant-internal possibility (ability) > participant-external possibility (permission) > epistemic possibility. One of the Turkish postverbal constructions *-ebil-* has diachronically undergone this development, i.e., ability > permission > possibility (Johanson 2009, Rentzsch 2013). However, the assumed semantic path we will discuss here is different.

The attestable data about *-A+γoy* to which we have had access so far comprises: (i) pre-modal meanings such as ‘to do something with ease, to the benefit of someone’, ‘to keep on doing something’, ‘to act suddenly or rapidly’, and (ii) a multifunctional semantic domain basically including two main types: volitional notions such as request, commands, encouragements, directives, permissions, etc., and epistemic possibility. The probability of a semantic path from volitional notions to epistemic possibility must be typologically tested on the basis of diachronic Turkic data.

Exploring the deep regularities of possible semantic chains in modal categories in Turkic languages is beyond the scope of this paper. But we will try to argue for a grammaticalization path of the individual item *-A+γoy-* in two stages: (i) from the above-mentioned pre-modal meanings to volition; (ii) from volitional notions to epistemic possibility.

Even though the data is scarce, the examples of the first stage can be observed in historical Turkmen texts dating back to the 18th century. The full form of the post-verbal construction *-A+γoy-* occurs with a semantic space including encouragement, insistence, directive, incitement, enabling, permission, etc., *Şeytan diyär şirin işdir aza göy/ Rahman aydar nefis umidîn üze göy* ‘The devil says “Go astray, it is joyful”. The Lord says “Take the edge off your desires”’ (In Mahtumkulu’s poem) (Annanurov 1974: 68, 72; 1977: 71).

The plausibility of a second stage in the semantic development from volition to epistemic possibility must also be discussed. In Johanson’s work on modals in Turkish, volition is described as “a modal notion expressed by voluntative, optative and hypothetical markers, meaning ‘it is desirable that, etc.’ suggesting that the action in question be carried out” (Johanson 2009: 489). Johanson also states that “in the Turkic languages of the Siberian group, optatives also express deontic and epistemic necessity and probability, obligation, permission, request, etc.” (2009: 490). In Turkish, there are some examples in which volitional items can mark speculative possibility in the neighborhood of a negation marker *-mA*, e.g. *Yarın gelmeye?* (tomorrow come-NEG-OPT.3SG) ‘What if he comes tomorrow?’ *Yüzüğü o çalmasın?* (ring he steal-NEG-VOL.3SG) ‘What if he stole the ring?’ Another evidence indicating a semantic connection between volition and hypothetical possibility is provided by the hypothetical mood *-sA*, which can be used as a marker of volition in the imaginative sense. In Turkish e.g., *Keşke bir kuş olsam* (if only a bird be-HYP.1SG) ‘If only I were a bird’, *Ali gelirse sinemaya gideceğiz* (Ali come-AOR-HYP.3SG movie go-FUT.1PL) ‘If Ali comes, we will go to the movies’. The conjecture about the lexical source of the hypothetical marker *-sA* is that it is grammaticalized from an old verb *sa-*, meaning ‘to want’, ‘to think’ (Korkmaz 1995: 160–167). In the view of such data, a diachronic semantic map like the one below can be postulated:



7. The morpheme *-KA*

The other morpheme we will investigate is *-KA*, which in questions functions as an epistemic particle. It is added to the end of an interrogative sentence and used together with interrogative words such as *kim* ‘who’, *nä:me* ‘what’, *nä:çe* ‘how many’, *haysi* ‘which one’, *nä:hi:li* ‘how’ etc., e.g. *bu kimkä?* ‘I wonder who he is?’, and with the question particle *-mX*, e.g., *Geldimikä?* ‘I wonder if X came?’. It modifies the meaning of the question, adding modal nuances such as doubt, hesitation, curiosity, uncertainty, apprehension, dilemma, etc., or a kind of “apprehensive opinion” about the proposition being asked about (Ballyjev 1989: 48). In questions which are modified by *-KA*, the following cases can be observed: (i) some are self-addressed questions in which the speaker directs the question to himself (examples 7, 8, 9); (ii) in some other examples the speaker not only asks for information, but also asks the addressee to share the speaker’s anxiety concerning the questioned proposition (examples 5, 6); (iii) in some speech situations, the speaker knows that the addressee is not able to give an answer, but still asks the question without expecting any reply (example 8).

- (5) *Yumruk yaly çaga otla münüp, yeke özi*
 fist like child train-DAT get on-CNV only self-POSS3SG
şu taýdan Gowşut obasyna
 DEM side-ABL Gowşut village-POSS3SG-DAT
gidip biläyermikä?
 go-CNV POSTV-AY.MOD-AOR.-Q.PART-DUB.PART
 /Yumruk ya:lī ça:ya o:tla: münüp yeke ö:ði şu ta:ydan Gowşut o:woθīna gidip
 bilä:yermikä:?!/
 ‘I wonder if a very small child (small as a fist) can get on the train and go to the Gowşut village alone?’ (G. 76)

- (6) *Dädem biziñ yzymyzdan*
 father-POSS1SG we-GEN behind-POSS1PL-ABL
yetermikä?
 catch-AOR-Q.PART- DUB.PART
 /Dä:dem biziñ iyðimīððan yetermikä:?!/
 ‘I wonder if my father can catch up with us?’ (A. 62)

- (7) *Indi nütsemkäm, kime dada*
 now what do-HYP.1SG-DUB.PART.1SG who-DAT help-DAT
gitsemkäm?
 go-HYP.1SG-DUB.PART.1SG.
 /Indi nä:θθemkä:m, kime δa:ða giθθemkä:m:?!/
 ‘Now where should I go, whom should I appeal to for help?’ (P. 616)

- (8) *“Bu kimkä? Nähili adamka? ...” diyip*
 DEM who-DUB.PART? What sort of man-DUB.PART say-CONV
pikir edýärler.
 idea put forward-PRES.3PL
 /“Bu: kimkä:? Nă:hi:li a:damqa:?” diyip pikir edyă:rler./
 ‘They are predicting about him: who is he, what sort of man is he?’ (G. 206)
- (9) *Nämüçin biz beýle güne galdykkak?*
 Why we such day-DAT stay-PAST.1PL-DUB.PART.1PL
 /Nă:mçün bið beyle güne ğa:llıqqa:q?/
 ‘What is the world coming to?’ (A. 58)

As in examples 10 and 11, the *-KA* and *-Ay* morphemes can be used together to mark the same predicate. This usage makes the epistemic value of the proposition more sophisticated. The speaker expresses a skeptical attitude. The semantic value of (...-*Ay*... + *KA*) is approximately: [(P+possibility)+dubitation]+query].

- (10) *Ýa bu ýerde gadym zamanlar medrese bolup,*
 what if DEM place-LOC old time-PL madrasah be-CONV
olam çöküp galadymyka?
 DEM-AM.PART collapse-CONV stay-AY.MOD-PAST-Q.PART-DUB.PART
 /Ya: bu: yerde ğadıym ða:mannar medreðe bolup, olam çöküp ğa:la:ydımıka:?/
 ‘I wonder, what if there was a madrassah here and it collapsed?’ (KM)
- (11) *Öçlülери yzyndan geläýdimikä:?*
 enemy-POSS3PL behind-POSS3SG-ABL come-AY.MOD-PAST-Q.PART-DUB.PART
 /Ö:şlülери iyðönnan gelä:ydimikä:?/
 ‘I wonder, what if his enemies came after him?’ (G. 88)

In Turkmen, *-KA* morpheme can take personal suffixes (see examples above). In verb forms marked with past tense marker *-dI* and hypothetical marker *-sA*, personal endings are used twice, e.g., *gitsemkäm?* {go-HYP.1SG-DUB.PART.1SG}, *geçirdiňkäň?* {pass-PAST.2SG-DUB.PART.1SG}, etc. The most often stated idea is that *-KA* is a grammaticalized form of the copula particle *eken* (< *erken*), which also exists in Turkmen as a marker of evidentiality in a non-reportive sense (Ballyjev 1989: 48, Söyegov et al. 2000: 379, for evidentiality in Turkic languages, Johanson 2003). Similar particles also exist in other Turkic languages, e.g. *eken* in Noghay, which can mark “eine meditativ-rhetorische Frage mit den Bedeutungen Zweifel, Bedenken oder Erstaunen” (Karakoç 2005: 30), *mikin* in Özbek (Merhan 2007), *irgi* in Tuvan (Çağatay 1969: 173), *ki* in Turkish, etc. Turkish *ki* and Tuvan *irgi* probably go back to Old Turkic *ärki*, which “mostly appears in interrogative sentences, where it

signifies ‘I wonder’; it usually indicates that the questioner has no hope of receiving a clear-cut and authoritative answer” (Erdal 2003: 350). In East Middle Turkic, *ärki* became rare and its functions were taken over by the copula particle *erken* (Merhan 2007: 208–209). But in Old Anatolian Turkish, and in some Ottoman texts dating back to the 15th and 16th centuries, an intermediate form *iki* can sometimes be observed. This intermediate form makes researchers assume a grammaticalization process for the Turkish dubitative particle *ki* as *ärki* > *iki* > *ki*. In *Elferecü bade’ş-şidde*, *Bu neiki didüm* (this what-DUB.PART say-PAST) ‘I wonder what he said?’, *Aceb bu ne makam iki?* (I wonder this what place-DUB.PART) ‘I wonder what kind of place it is?’ (Koç 1998; for further explanation about *ki*, see Küçük 1987, Özkan 2007, Korkmaz 1995; for the marking of a higher degree epistemic conviction by *ki*, see Yüceol-Özezen 2013).

8. Conclusion

In this paper, two particles modifying the meaning of questions in Turkmen were discussed. These morphemes convey particular semantic values such as speculative epistemic possibility, predictive hypothetical content, etc. The morpheme *-Ay* takes part in the formation of questions expressing speculative possibility. The other morpheme, *-KA*, encodes particular speculative-dubitative meanings such as doubt, hesitation, curiosity, uncertainty, apprehension, dilemma, etc. The grammaticalization process of the morpheme *-Ay* can be conceived of as a semantic development from volitional notions to epistemic possibility. Nevertheless, the probability of such a semantic development must be tested on Turkic diachronic data. The possible semantic path from volition to epistemic possibility is in need of future study.

Abbreviations

1	first person	IMP	imperative
2	second person	MOD	mood
3	third person	NEG	negation
ABL	ablative	NESS	necessitative
ACC	accusative	OPT	optative
AM.PART	particle in <i>-am</i> ‘also’ derived from <i>hem</i> ‘also, too’	PAST	past tense
AOR	aorist	PL	plural
CONV	converb	POSS	possessive
DAT	dative	POSTV	postverb
DEM	demonstrative	PRES	present tense
DUB.PART	dubitative particle	PTCP	participle
FUT	future tense	Q.PART	interrogative particle
GEN	genitive	SG	singular
HYP	hypothetical mood	VN	verbal noun
		VOL	voluntative

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Interrogative structures in Tuvan

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This article is a descriptive study of interrogative structures in Tuvan, one of the Southern Siberian Turkic languages. The interrogative structures were examined in terms of both their morphosyntactic and syntactic structures and their semantic and discourse functions within the scope of this study. Firstly, Tuvan interrogative sentences were classified on a typological basis and described in detail. Also, the place of the interrogative particle in the sentence, grammatical functions of interrogative words and their discourse-pragmatic values were mentioned. The descriptions here can be applied not only to Standard Tuvan but also to certain of its dialects (Altay Tuvan and Jungar Tuvan). This article aims to provide a basis for interrogative typology in Turkic languages.

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0. Introduction

This article deals with interrogative structures in the Tuvan language, one of the Southern Siberian Turkic languages.¹ Morphosyntactic and syntactic properties, and semantic and discourse-pragmatic functions of interrogative structures will be discussed and described from a typological perspective. Tuvan bears close resemblance to Common Turkic languages in terms of typology. For example, the interrogative particle *be* in Tuvan corresponds functionally to the *mX* morpheme in Common Turkic and is located at the end of the sentence, e.g. *Divedim be?* ‘Didn’t I say?’, *Sen inek sa:n be?* ‘Did you milk a cow?’. In addition, there are question words such as *qim* ‘who’, *čü:* ‘what’, *čüge* ‘why’, *qaya:* ‘where’, *qayı:n* ‘from where’, and *qažan* ‘when’, of which the greater part are of Turkic origin but a few are copied from foreign languages (e.g. *čü:* ‘what’ ← Mongolian *yu:(n)* ‘what’) (Menges 1959: 661). Also, another significant fact is the existence of interrogative adverbs that have become lexicalized. For example, *qančap* (< *qanča-* ‘to do what’ + *-p*) in Tuvan func-

1 This article is an expanded version of the presentation *Interrogative Structures in Tuvan* presented at *The 17th International Conference on Turkish Linguistics* held at the University of Rouen (France) between 3 and 5 September 2014.

tions as an interrogative adverb meaning ‘how’, e.g. *Sen ʔanʔap üsden yuzup duru sen?* ‘How are you vomiting from butter?’. The theoretical framework of this study is based on the typological approaches presented in Siemund (2001) and Dixon (2012). Interrogative structures of Tuvan will be classified and described within these frameworks. Topics to be discussed include the position of the interrogative particle *be*, interrogative sentences formed with interrogative words, interrogative sentences formed with interrogative verbs, and information structure and its functions in interrogative sentences. A typological comparison between Common Turkic and Tuvan will also be presented.

1. Theoretical background and terminology

Sentences are typologically grouped into three main types: declarative sentences, imperative sentences and interrogative sentences (Siemund 2001: 1011, Dixon 2012: 376). These are represented in Tuvan, too:

- (i) Declarative sentence: *Süt iʒip tur men* ‘I’m drinking milk.’
- (ii) Imperative sentence: *Meni mana!* ‘Wait for me!’
- (iii) Interrogative sentence: *Süt iʒtiŋ be?* ‘Did you drink milk?’

When a person wants to learn something, he asks questions (Dixon 2012: 377). Considered from a typological point of view, there are seven different markers of interrogative sentences: (i) intonation, (ii) interrogative particles, (ii) interrogative markers, (iv) disjunctive constructions, (v) order of constituents, (vi) inflexion and (vii) interrogative words (Siemund 2001: 1011). In modern Turkic languages interrogative sentences are mainly formed by using interrogative particles, intonation and interrogative words rather than intonation. Tuvan prefers interrogative particles and interrogative words. Moreover, Tuvan differs from Common Turkic by using interrogative verbs.

Interrogatives are divided into three main typological groups: polar interrogatives, content interrogatives and alternative interrogatives (Siemund 2001: 1011). Using polar interrogatives, also known as *yes/no* questions, the speaker expects the interlocutor to confirm the truth/falsity of the proposition, e.g. Turkish *Ayşe sınavı geçti mi?* ‘Did Ayşe pass the exam?’. Using content interrogative sentences which are formed with interrogative words (interrogative pronouns, adverbs, adjectives) the speaker wants to get information on the issue about which he has limited information (Dixon 2012: 377), e.g. *Kim derse gelmedi?* ‘Who didn’t come to the lesson?’. And in alternative interrogative sentence types, the speaker expects the listener to select from two alternative answers, e.g. Turkish *Sen gidecek misin, yoksa ben gideyim mi?* ‘Will you go or shall I?’.

From a typological point of view, polar interrogatives are the most frequently used interrogative structures. Siemund (2001: 1012) sorts the polar interrogative sentences according to the markers used. These may be intonation, interrogative

particles, question tags, changing the order of constituents and verb inflection. Intonation is the most frequently used question formation type. Using a question tag and changing the order of constituents are relatively less frequent ways of forming interrogative sentences. Verb inflection is a method encountered occasionally, e.g. in Eskimo (Siemund 2001: 1012).

2. Interrogative sentences in Turkic languages

According to this typological classification, interrogative sentences in Turkic languages exhibit the following types.

2.1. Polar interrogatives

Polar interrogatives are also known as *yes/no interrogative sentences*. This type, common in Turkic languages, can be formed in different ways: (i) with intonation, e.g. Cypriot Turkish *Buraya park edilIR?* ‘Is parking allowed here?’ (Demir 2002), Salar *Sen işDU/işDO?* ‘Did you drink?’ (Luo 2013: 124)² and (ii) with interrogative particles such as Turkish *mi*, Tuvan *be*, Uyghur *mU*, Kazakh *MA*, Uzbek *mi*, etc. These particles occur with rather different morphologies in modern Turkic languages. They generally occur at the end of sentences, e.g. Tuvan *Avan keldi be?* ‘Did your mother come?’, Tatar *Anı kürdēñ mē?* ‘Did you see X?’, Uzbek *Kēlāsiz mi?* ‘Are you coming?’ However, in Turkish, for example, the place of the interrogative particle can change according to the information structure (topic, focus, etc.) and the discourse-pragmatic functions, e.g. *Ali mi pencereyi kırdı?* ‘Did ALI break the window?’, *Ali pencereyi mi kırdı?* ‘Did Ali break THE WINDOW?’. This topic will be discussed below.

2.2. Content interrogatives

This interrogative type is formed by using any interrogative word (interrogative adverb, interrogative pronoun, interrogative adjective), e.g. Tuvan *qīm* ‘who’, Yakut *xas* ‘how much’, Kazakh *qayda* ‘where/whither’. The speaker wants to get information on a matter about which he has limited information; i.e. he wants to eliminate his lack of knowledge about it.

- (1) Tuvan
Ačaŋniŋ adı qīm?
 father-POSS2SG-GEN name-POSS3SG what
 ‘What’s your father’s name?’

- 2 Interrogative structures can also be formed with intonation in Azerbaijanian and Kashkay, in which grammatical changes and deviations based upon language contacts are seen (Johanson 2002: 90).

- (2) Yakut
Bu kilāska xas tūnnük bāriy?
 this class-DAT how many window existing-COP
 ‘How many windows are there in this class?’
- (3) Kazakh
Bügin qayda barmaqşız?
 today where go-INTENTIONAL-2PL
 ‘Where do you want to go today?’

2.3. Alternative interrogatives

This type of interrogative is formed by combining two simple interrogative clauses, and as a rule, a grammatical connector such as *yoksa* ‘or’ joins the two clauses. One of two answer alternatives is expected here unlike with polar interrogatives (Dixon 2012: 398), e.g. Turkish *Kahve mi içersin yoksa çay mı (içersin)?* ‘Will you drink coffee or (will you drink) tea?’, *Sen mi gidiyorsun yoksa ben mi gideyim?* ‘Are you going or shall I?’.

2.4. Tag interrogatives

Tag interrogatives are formed by adding a question tag to the end of the sentence, e.g. Turkish *değil mi?*, Tuvan *indiy be?*, Kazakh *solay ma?*, for instance, *Ali okulu bitirdi, değil mi?* ‘Ali finished school, didn’t he?’. In addition, this interrogative tag is accented with a special intonation in every language (Dixon 2012: 392). The speaker expects the interlocutor to confirm the truth of the proposition by using this interrogative structure; i.e. it is expected that the answer to the question should be *yes* but, of course, the answer can also be *no*.

3. Interrogative sentences in Tuvan

Tuvan is close to Common Turkic with respect to the typology of interrogative structures. Tuvan also has four different interrogative sentences including polar interrogatives, content interrogatives, alternative interrogatives and tag interrogatives.

3.1. Polar interrogatives

In Tuvan, polar interrogatives are formed with the interrogative particle *be*. This particle is not harmonic, having only one form, and is located at the end of the sentence, e.g. *Xlep bar be?* ‘Is there any bread?’. Detailed information concerning the position of this particle in the sentence will be given in section 4 below. Here, two examples are given with the enclitic *be*:

- (4) Tuvan
Törelderim čamdī:zī keldi be?
 relative-PL-POSS1SG some-POSS3SG come-PAST3SG Q
 ‘Did some of my relatives come?’ (Anderson & Harrison 1999: 29)
- (5) Altay Tuvan
*Aliniŋ bodu Anqaraya čoru:n be?*³
 Ali-GEN self-POSS3SG Ankara-DAT go-PAST3SG Q
 ‘Did Ali go to Ankara?’

This uniform interrogative particle, which is not subject to palatal harmony in Standard Tuvan, is both multiform and subject to palatal harmony in Altay Tuvan language,⁴ e.g. *Bolur va?* ‘Is that so?’, *Geldi be?* ‘Did X come?’, *Amir ja:γay siler ve?* ‘Are you OK?’.

3.2. Content interrogative sentences

This type of interrogative sentences in Tuvan is formed with a question word, e.g. *Qim keldi?* ‘Who came?’, *Čünü duγayında čuya:la:n bis?* ‘What did we talk about?’, Altay Tuvan *Sen jüge iγlap duru sen?* ‘Why are you crying?’. With these types of questions the speaker tries to eliminate a lack of information about a certain subject.

3.2.1. Sentences formed with interrogative pronouns

- (6) Altay Tuvan
Gayna:r bar jor sen?
 where go-PRES 2SG
 ‘Where are you going?’

3.2.2. Sentences formed with interrogative adjectives

- (7) Tuvan
Orus dildan öske qandiy dildar bilir sen?
 Russian language-ABL other which language-PL know-AOR 2SG
 ‘Which languages do you know other than Russian?’ (Harrison 2000: 33)

- 3 In Standard Tuvan, there are also similar examples like *Ali Anqaraže čora:n be* or *Ali Anqaraya baryan be*.
- 4 Altay Tuvan is a Tuvan variety spoken in the west of Mongolia. If not otherwise specified, the examples of Altay Tuvan in this article are taken from texts compiled from the region by Dr. Erika Taube.

3.2.3. Sentences formed with interrogative adverbs

- (8) Tuvan
(Sen) qažan törüttüngen sen?
 you when be born-PAST 2SG
 ‘When were you born?’ (Harrison 2000: 35)

- (9) Tuvan
Qayna:r čorup qa:n
 where go-CONV AUX.PAST3SG
 ‘Where did X go?’ (Harrison 2000: 17)

3.3. Alternative interrogative sentences

These kinds of interrogative sentences are formed by combining two interrogative clauses. An answer is expected from the interlocutor concerning which of the alternatives is true/valid (see Kornfilt 1997: 8). In general, there is no grammatical element between these two questions, but the connector *čoq ~ joq* ‘or’ can be used in certain cases, as in the example from Jungar Tuvan⁵ below.

- (10) Altay Tuvan
Šay ižersen be, sūt ižersen be?
 tea drink-AOR-2SG Q milk drink-AOR-2SG Q
 ‘Will you drink tea or (will you drink) milk?’
- (11) Altay Tuvan
Er Ayı:n ölüg sen be, dirig sen be?
 Er Ayı:n dead 2SG Q alive 2SG Q
 ‘Er Ayı:n, are you dead or alive?’
- (12) Jungar Tuvan
Sen ba:rsen be, joq, men bar-ayın ba?
 you go-AOR-2SG Q or I go-OPT.1SG Q
 ‘Will you go or shall I go?’ (Luo 2013: 127)

3.4. Tag interrogative sentences

Tag interrogative sentences are formed by putting a *question tag* at the end of a proposition as mentioned above. *İndiy be?* ‘Isn’t it?’ functions as a question tag in

5 Jungar Tuvan is a Tuvan variety spoken by about 3000 speakers in the Uyghur Autonomous Region of Xinjiang in China.

Tuvan. Tag interrogatives form a special kind of *yes/no* questions; see the following Altay Tuvan example.

(13) Altay Tuvan

*Osman Anqara-da ažiłda:r, iñdiy be?*⁶
 Osman Ankara-LOC work-AOR3SG TAG Q
 ‘Osman works in Ankara, doesn’t he?’

3.5. Interrogative verbs

Very few languages (such as some of the Australian languages) have interrogative verbs. These are derived from interrogative nouns (Dixon 2012: 417). It is fascinating that interrogative verbs also exist in Tuvan. These have been derived from interrogative pronouns, as for example, *qanča-* ‘to do what’. This verb category also exists in Mongolian where the corresponding forms are also derived from interrogative pronouns, e.g. *yayaki-* ‘to do what’ (Poppe 2006: 66, Janhunen 2012: 132, 146). Thus, one of the ways to form interrogative sentences in Tuvan is to use an interrogative verb. In the following example, the interrogative verb *qanča-* ‘to do what’ is used, e.g. *Qančap tur?* ‘What is X doing?’, *Qančaldıñ?* ‘What did you do?’ (Anderson & Harrison 1999: 28). The verb *qanča-* can be both transitive and intransitive in Tuvan dialects.

(14) Altay Tuvan

Meni ölürer irgin. Am yanja:r men?
 I-ACC kill-AOR3SG COP now what.do-AOR 1SG
 ‘X will kill me. What shall I do now?’

(15) Tuvan

O:n iñay čünü qanča:r bis?
 that-ABL after what-ACC what.do-AOR 1PL
 ‘What will we do after that?’

(TRs: 225)

Verbal adverbs formed from interrogative verbs are lexicalized as interrogative adverbs (Aydemir 2009: 121). For example, *yanjap* ‘how’ (< *yanja-p* [what do-CONV]) in the examples below is an interrogative adverb.

6 This sentence may correspond to the sentences *Osman Anqarada ažiłda:p turar, iyik be* and *Osman Anqarada ažiłda:p turar, iñdiy ale (iyik be)* in Standard Tuvan.

(16) Altay Tuvan

Sen γanǵap üsden γuzup duru sen?
 you how butter-ABL vomit-PRES 2SG
 ‘How are you vomiting from butter?’

(17) Tuvan

Qančap mında keldiñ?
 how here come-PAST-2SG
 ‘How did you come here?’

(TRs: 225)

(18) Altay Tuvan

Bodunan üngen o:ldu giži γanǵap ölüreril?
 body-ABL born-PRTC son-ACC person how kill-AOR.3SG-COP
 ‘How can one kill X’s own son?’ (Aydemir 2009: 121)

4. Syntactic positions of interrogative particles

In Turkic languages, an enclitic interrogative particle has been used since the oldest known periods of Turkic: Old Turkic *mU*, Middle Turkic *mU*, Ottoman Turkish *mX*, Tatar *mI*, Karachay Balkar *mX*, Uzbek *mi*, Uyghur *mu*, Kazakh and Karakalpak *MA*, and Yakut *duo*. This interrogative particle can follow any constituent in Turkish, e.g. *Ali okula gitti mi?* ‘Did Ali go to school?’, *Ali okula mı gitti?* ‘Did Ali go to SCHOOL?’, *Ali mi okula gitti?* ‘Did ALI go to school?’ (Johanson 1998: 57). In general, the interrogative particle *be* in Tuvan is located at the end of the sentence (Anderson & Harrison 1999: 89).

(19) Tuvan

Sen bögün biblioteka ba:r sen be?
 you today library-DAT go-AOR 2SG Q
 ‘Will you go to the library today?’

(20) Tuvan

Olurup ap bolur men be?
 sit-CONV POSBL COP.AOR 1SG Q?
 ‘May I sit?’

(Anderson & Harrison 1999: 89)

In contrast to Standard Tuvan, in some Tuvan dialects the interrogative particle can also be located before the predicate. For example, the interrogative particle *ba* is dislocated into the focus position depending on some discourse-pragmatic functions in the following Altay Tuvan question, which is from an Altay Tuvan student in Istanbul:

(21) Altay Tuvan

Ali Anqarayā ba čordu?
 Ali Ankara-DAT Q go-PAST3SG
 ‘Did Ali go to ANKARA?’

The interrogative particle *mU* in Old Turkic is normally located after the verb but sometimes it can precede it, e.g. *Qayan mu qısayın?* ‘Should I make him a Khagan?’ (Erdal 1998: 152). In languages of the linguistic area where Tuvan is spoken, interrogative particles are located at the end of the sentence, e.g. *uu* in Mongolian (Luo 2013: 172), *no/nio* in Manchu (Luo 2013: 133), *gi/giu*, *ba*, *wu* in Evenki (Luo 2013: 134) and *ma* in Standard Chinese (Luo: 165).

5. Interrogative sentences with interrogative words

Like many Turkic languages, Tuvan has a large number of interrogative words, i.e. interrogative pronouns, interrogative adverbs and interrogative adjectives. Content questions are formed by using these grammatical elements. The interrogative words in Tuvan are as follows: *qım* ‘who’, *čü:* ‘what’, *čüge* ‘why’, *čeže* ‘how much’, *qan-diŋ* ‘which’, *qayda* ‘where’, *qažan* ‘when’, *čüden* ‘from what’, *qaš* ‘how much’, *qayı* ~ *qay(i)zi* ‘which of’, *qaya:* ~ *qayna:r* ‘to where’, *qayı:n* ‘from where’ (Anderson & Harrison 1999: 28). See the following examples.

(22) Tuvan

Sen qaš xarlıŋ sen?
 you how many old 2SG
 ‘How old are you?’ (Anderson & Harrison 1999: 28)

(23) Tuvan

Qayı:n kelgen siler?
 where-ABL come-PAST 2PL
 ‘Where are you from?’ (Anderson & Harrison 1999: 28)

(24) Tuvan

Sende čü: barıl?
 you-LOC what existing-COP
 ‘What have you got?’ (Anderson & Harrison 1999: 88)

5.1. Syntactic positions of interrogative words

Interrogative words may take different positions: at the beginning of the sentence (e.g. English), at the end of the sentence (e.g. Kana), and as a conjugated copula at the end of the sentence (e.g. Kushi and Tanzanian languages) (Dixon 2012: 405).

The order of constituents in Turkic languages changes depending on their discourse-pragmatic functions (Schröder 2001: 73) or, as Johanson puts it, the information structure (see Johanson 1998: 58–59). The topic is located at the beginning of the sentence and this element indicates ‘known information’, that is to say, ‘old information’. ‘New information’ is coded in the focus position located right before the verb, and the qualified noun and interrogative pronoun take this position (Johanson 1998: 58). Constituent order is dependent on information structure (Johanson 1977). For example, while the interrogative word *kim* ‘who’ in the sentence *Derse kim gelmedi?* ‘Who didn’t come to the lesson?’ is located in the immediately preverbal (i.e. focus) position, in *Kim derse gelmedi?* ‘Who didn’t come to the lesson?’ it is located in topic position. Thus, the information structure and communication perspective determine the interrogative element’s position in Tuvan as well. For example, while the interrogative words in the first two of the following examples are predicate nouns and take the last position in the sentence, these interrogative words are located in the focus or topic position in the other examples.

(25) Tuvan

Ča:sqan bolzumza a:s-keži:m qaydal (< qayda ol)?
 alone be-COND.1SG happiness.POSS1SG where-LOC.COP
 ‘If I am alone, where is my happiness?’ (Anderson & Harrison 1999: 47)

(26) Tuvan

Bir šaqta minut qažıl (< qaš ol)?
 a hour-LOC minute how many.COP
 ‘How many minutes are there in an hour?’ (Anderson & Harrison 1999: 88)

Interrogative words are located in the focus position in the following examples:

(27) Altay Tuvan

O:y, o:l, meni jüge ederip duru sen?
 O son I-ACC why follow-PRES 2SG
 ‘O son, why are you following me?’

(28) Tuvan

Malčün qayna:r čora:n irgi?
 shepherd where go-PAST3SG PARTCL
 ‘I wonder where did the shepherd go?’

Interrogative words are located in the topic position in the following examples:

- (29) Tuvan
Qančap mında keldiŋ?
 how here come-PAST-2SG
 ‘How did you come here?’ (TRs: 225)

The interrogative word in the following example is located neither in topic nor in focus position.

- (30) Altay Tuvan
Bo ezirler jüge ina:r “öŋdeŋ” ɣaynıp duru?
 this eagle-PL why nonstop “öŋdeŋ” shout-PRES3SG
 ‘Why are these eagles shrieking nonstop “öŋdeŋ”?’

5.2 Interrogative words in subordinate clauses

So far, the use of interrogative words in main clauses has been discussed. However, we encounter these elements also in subordinate clauses in Tuvan. In other words, some interrogative pronouns and interrogative adverbs are used as connectors in subordinated clauses. For example, *qažan* ‘when’ serves as a connector in adverbial clauses of time. In general, *qažan* is used correlatively with certain converb suffixes (e.g. *-XrGA* or *-sA*).

- (31) Tuvan
Qažan xün ünüp be:rge, čer čirīq be:r (< čirīp berir)
 when sun rise-CONV AUX.CONV earth bright.CONV AUX.AOR3SG
 ‘When the sun rises, the earth is bright.’ (Anderson & Harrison 1999: 84)

- (32) Tuvan
Qažan xar ča:rīn soqsadıpsa, aŋnap egeley
 when snow fall-AOR.POSS3SG.ACC stop-COND, hunt-CONV AUX.begin-CONV
be:r bis
 AUX.AOR 1PL
 ‘When it stops snowing, we begin hunting.’ (Anderson & Harrison 1999: 47)

Likewise, on the one hand the interrogative pronoun *qim* ‘who’ forms finite adverbial clauses, which are a type of adverbial clauses (33); on the other hand it serves as a connecting element in infinite complement clauses (34):

(33) Tuvan

Qim ür čurtta:rıl, ol xöynü kö:r.

who long live-AOR3SG.COP X lot-ACC see-AOR3SG

‘Who lives long sees a lot.’

(Anderson & Harrison 1999: 89)

(34) Altay Tuvan

Am o:l uya:n sege:n girip [γim sen de:rin]

now that boy yourself come-CONV [who 2SG say-AOR.POSS3SG.ACC]

sura:r irgin.

ask.AOR3SG COP

‘Now, that boy is said to regain his consciousness and asks [who you are].’

6. *Irgi* in interrogative sentences

We encounter *irgi* (<Old Turkic *erki*), which sometimes we can call a modal particle, in interrogative sentences in Tuvan. The element *irgi*, which Isxakov and Pal'mbax call a “politeness particle” (1961: 433), unlike the particles *a:m* and *iyin*, occurs in interrogative sentences only, not in imperative and declarative sentences (Voinov 2014: 149, Johanson 2012: 53, Erdal 2004: 350). A meaning such as ‘I wonder’ is added to the content of sentence in this modal interrogative structure expressing politeness/respect. If *irgi* is in the same sentence with interrogative particle *be*, the interrogative particle is located at the end of the sentence as usual.

(35) Tuvan

Et dülüp qa:n irgi be?

meat cook-CONV AUX.PAST3SG PARTCL Q

‘I wonder if the meat has cooked?’

(36) Tuvan

Suγa düže beržik irgi be?

water-DAT fall-CONV AUX.PAST3SG PARTCL Q

‘Has X fallen into the water all of a sudden?’

The modal particle *irgi* may also occur in interrogative structures formed with interrogative words, i.e. in content interrogatives. Also, in this case, *irgi* conveys a meaning like Turkish *acaba* ‘I wonder’ (or modal particle *ki*).

(37) Tuvan

Qažan kelir irgi?

when come-AOR3SG PARTCL

‘I wonder when X will come?’

(38) Tuvan

Malčīn qayna:r čora:n irgi?
 shepherd where go-PAST3SG PARTCL
 ‘I wonder where the shepherd has gone.’

(39) Tuvan

Am qanča:r irgi men?
 now do what-AOR PARTCL 1SG
 ‘I wonder what I shall do now?’

(40) Tuvan

Čünü- le kö:r irgi men?
 what-ACC PARTCL see-AOR PARTCL 1SG
 ‘I wonder what I shall see?’

(Voinov 2014: 150)

7. Conclusion

In this study, four types of interrogative structures in Tuvan have been described: polar, content, alternative and tag interrogatives. An interesting feature of Tuvan is that it has interrogative verbs, a property that is not common in Turkic languages but is shared by other languages in the linguistic area. These types of interrogatives were examined in detail according to their syntactic structures and semantic functions. It was demonstrated that the position of interrogative particles and interrogative words depends on some typological properties and can change according to their discourse-pragmatic functions. Our aim has been to outline a typological model of interrogatives for Turkic. This model will provide a basis for comparative studies to be carried out in the future.

Abbreviations

←	comes from
ABL	ablative
ACC	accusative
ADJ	adjective
AOR	aorist
AUX	auxiliary verb
COND	conditional
CONV	converb
COP	copula
DAT	dative
GEN	genitive
LOC	locative
OPT	optative

PARTCL	particle
PAST	past
PL	plural
PRES	present
POSBL	possibility
POSS	possessive
PRTC	participle
Q	interrogative
SG	singular
TAG	tag element
X	he/she/it

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Compounds of Turkic origin in Yeniseian

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The paper deals with Yeniseian compounds of Turkic origin. The predominant noun word-formation technique in Yeniseian is compounding. Morphological strategies (e.g. assimilated amalgamations, hybrid words, appearance of the so-called “half-affixes” or “semi-suffixes”) characterizing compounds of Turkic origin in Yeniseian languages are discussed.

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Introduction

This paper deals with compounds of Turkic origin in Yeniseian languages.¹ It is important to study this topic because research on loanwords in Yeniseian is scarce and compounding of non-Yeniseian elements has not been investigated at all. Turkic nouns and adjectives constitute the largest group of loanwords, making their study particularly interesting.

In Yeniseian, morphologically complex noun stems are mainly built through root compounding. Although suffixal derivation is atypical for Yeniseian, there are a few productive derivational suffixes as well.

Werner’s comparative dictionary of Yeniseian languages (2002) and his Yeniseian materials (2005) served as the main source of material for this study, as these works include the complete body of lexical material of Yeniseian languages published until now. Another source of my work was Vajda and Werner’s etymological dictionary of Yeniseian languages, which is still in preparation.

Compounds in Yeniseian

The Yeniseian lexicon can be divided into three main morphosyntactic classes: nouns, modifiers and verbs.

¹ I wish to express my gratitude to the Hungarian Eötvös State Fellowship and the Campus Hungary Fellowship for providing me with the opportunity to carry out research at the Center for East Asian Studies, Western Washington University, USA, and study historical Yeniseian linguistics there under the supervision of Edward Vajda from April to June, 2012, and in March, 2014. This study would not have been possible without his teaching and guidance; therefore, I would also like to express my sincerest gratitude to him.

Nouns are morphologically of three types. In Ket, many basic nouns are non-derived monosyllabic words such as *ke't* 'person', *ā'm* 'mother', *tī·k* 'snow', *sē·s* 'river', etc. As mentioned above, suffixal derivation is atypical in Yeniseian, but a small number of derivational morphemes also occur in Ket. The most important one is the frequently used nominalizer in *-s*, which forms nouns from other parts of speech. The third morphological type of nouns includes root compounds. There is no reduplication in either inflection or derivation. In terms of their morphosyntax, Yeniseian languages are strongly synthetic, but their stem-building processes are based primarily on root compounding rather than affixation (Vajda 2015: 510).

Root compounds

The dominant noun-forming technique of Yeniseian is compounding. Yeniseian nominal compounds usually consist of two elements referred to as the determiner and the semantic head. The most common structure is the compounding of a head with a determiner that is a noun itself. Adjectival and verbal roots may also function as determiners in nominal compounds (for details and more examples, see Georg 2007: 125).

Noun + Noun

isal 'fish soup' ← *īs* 'fish' + *āl* 'soup'
kúbkul 'mustache' ← *kūb* 'front end' + *kūl* 'beard'
mámul 'milk' ← *mā'm* 'breast' + *ūl* 'water'

Adjective + Noun

kíboŋ 'body, corpse' ← *ki'* 'new' + *bōŋ* 'dead person'

Verb + Noun

qiked 'merchant' ← *qi* 'to sell' + *ke'd* 'human'
táŋsel 'leading reindeer' ← *tāŋ* 'to pull' + *səl* 'reindeer', etc.

Genitive-linked compounds

The second type of Yeniseian nominal compounds is characterized by the presence of the petrified genitive *-d-* between the constituents (Georg 2007: 126–127). Vajda (2015: 511) calls it the lexicalized possessive construction.

ba'ŋ 'earth' + *i'l* 'spirit' → *bāŋdil* 'earth spirit'
békin 'hand' + *təqol* 'ring' → *békinttəqol* 'bracelet'
bə'n 'duck' + *hīs* 'tail' → *bəndis* 'duck-tail'
daan 'grass' + *ūl* 'handle' → *dāndul* 'blade of grass'; etc.

According to Georg, the presence or absence of this marker may be indicative of the relative age of the formation. The compounds with genitive link are possibly younger (Georg 2007: 126).

Suffixal derivation

Derived noun stems contain nominal affixes originating from noun roots (for details and more examples, see Vajda 2015: 510–511; Georg 2007: 129–134).

The Ket suffix *-kit*, originating from the Yeniseian word *ka'd* ‘offspring’, derives nouns denoting immature trees, fish, or animals: *bɛskit* ‘baby rabbit’ ← *bɛ's* ‘rabbit’, *qúdgít* ‘immature pike’ ← *qúd* ‘pike (fish)’, *u'lgít* ‘aspen sapling’ ← *u:l* ‘aspen’.

The Ket suffix *-aj* meaning ‘container’: *dáqaj* ‘eagle’s nest’ ← *dàq* ‘eagle’, *qámnaj* ‘quiver’ ← *qámn* ‘arrows’.

The Ket singulative suffix *-dis*, originating from the Yeniseian word *dē's* ‘eye’, derives count nouns denoting a small, individuated portion of a larger pourable mass: *imdis* ‘single pine nut’ ← *ī'm* ‘pine nuts’, *qondis* ‘glass bead’ ← *qō'n* ‘beads’; etc.

There is no consensus on how to denote a transitional category between compounded roots and derivational affixes. Werner and Vajda call them “half-affixes” (Werner 1997: 50–54, Vajda 2015: 511), while Georg calls them “semi-suffixes” or “heads in compounds” (2007: 129).

Compounds of Turkic origin in Yeniseian

In the collected material, compounds of Turkic origin were only found in Arin, Kott and Assan. I faced some problems during the research, since there are no grammatical descriptions of Arin and Assan. Only short word lists are available in Werner’s publications (2002, 2005). Nevertheless, we have some more information on Kott. There is a detailed grammar and a small Kott dictionary written by Castrén (1858) and Werner (1990).

Here, I present 28 compounds of Turkic origin in Yeniseian, which show the influence of Turkic-speaking peoples on Yeniseian. These loanwords can play a role in determining chronology of borrowing.

Yeniseian compounds of Turkic origin follow the Yeniseian structure; they consist of a determiner and a semantic head.

- (1) Kott *ekačāčik* ‘wax’ (Werner 2002/1: 229) ← Turkic *ağaç čuk*
 < *ağaç* ‘tree’: cf. Old Turkic *īğāč* ‘tree; wood (generally), a piece of wood’; NE^S YeniseyT: Khakas *ağas*; Sagai *ağīs*; Koibal *ağas* ~ *ağīs*; Kyzyl *ağas* ~ *āğas*; Shor *agaš*;

AltayT: Altay *ağaş*; Tuba *agaš* ~ *aḡaš* ~ *āč*; Qumanda *agač* ~ *agaš*; Quu *agač* ~ *agaš* ~ *agiš*; Teleut *agaš*; SayanT: Tuvan *īyaš*; Tofan *héš*; ChulymT *ağac* ~ *agac* ~ *āč*; NE^N Yakut –; NW^N Siberian Tatar *ağac* ~ *ağac*; NW^S Kirgiz *jīgač*; Fu-yü *agaš* ~ *agiš*; Kazak *agaš*; SE Yellow Uyghur *yīgaš*
 + *čuk* ‘resin’ ← Yeniseian: cf. Old Turkic –; NE^S YeniseyT: Khakas *čux*; Sagai *čuq*; Kyzyl *šux*; Shor *čuq*; AltayT: –; SayanT: Tuvan *čuk*; Tofan *čuq*; ChulymT –; NE^N –; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü –; SE Yellow Uyghur –.

The Kott compound *ekačacik* ‘wax’ consists of the Turkic words *ağac* ‘tree’ and *čuk* ‘resin’. According to the phonetic changes, it seems that the Kott word is a compound of two different loanwords. The first part *ekača* was possibly borrowed from Altay Turkic or Chulym Turkic, where the word form *ağac* can be found. The second part of the Kott word *čik* is problematic; it probably belongs to the category of “re-borrowings”. The etymology of the Turkic word is unknown; it is only present in Yenisey Turkic and Sayan Turkic languages (Räsänen VEWT 119; Rassadin 1971: 198; Stachowski 1997: 230). Vajda (personal communication) suggests that the Turkic root originates from an earlier Yeniseian borrowing into the South Siberian Turkic languages, probably from an Old Kott-Assan source.

- (2) Assan *šarijag* ‘butter’ (Werner 2002/2: 437) ← Turkic *sari yag*: cf. AltayT: Altay *sari yū*; SayanT: Tofan *sariḡ-čag* ‘butter’
 < *sari* < *sariḡ* ‘yellow’: cf. Old Turkic *sāriḡ*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin, Shor *sariḡ*; Kyzyl *sāri* ²; AltayT: Altay; Tuba *sari*; Qumanda *sari* ~ *sāri*; Quu *sarū* ~ *sari*; Teleut *sari* ‘yellow; light bay (colour of horse)’; SayanT: Tuvan *sariḡ* ‘yellow; light bay (colour of horse); white (colour of skin); light (colour of hair)’; Tofan *sariḡ*; ChulymT *sāriḡ*; NE^N Yakut *araḡas*² ‘yellow, yellowish, straw-coloured, golden (of colour)’, cf. *ariū* ‘butter’; Dolgan *ariū* ‘butter’; NW^N Siberian Tatar *sari*; NW^S Kirgiz *sari* ‘yellow, red-haired, light-brown’; Fu-yü *sariḡ*; Kazak *sari*; SE Yellow Uyghur *sariḡ*
 + *yag* < *yāḡ* ‘grease, fat, oil’: cf. Old Turkic *yāḡ*; NE^S YeniseyT: Khakas *čag*; Sagai, Koibal *čag*; Kachin *yīḡ*; Shor *čag*; AltayT: Altay *d’u* ‘fat’, *d’ū* ‘suet’; Tuba *d’ū*; Qumanda *d’u* ‘fat, butter’, *d’ig* ‘fat, grease’; Quu *yīḡ* ‘fat, grease’; Teleut *yū* ‘grease’; SayanT: Tuvan; Tofan *čag* ‘fat’; ChulymT *čag* ‘butter, fat’; NE^N Yakut *sia* ‘fat, grease’; Dolgan *hūa*; NW^N Siberian Tatar –; NW^S Kirgiz *žak-* ‘to grease’; Fu-yü –; Kazak *jaq-* ‘to grease’; SE Yellow Uyghur *yag* ‘butter’.

The Assan compound *šarijag* ‘butter’ is a borrowing from the Turkic words *sariḡ* ‘yellow’ and *yāḡ* ‘grease, fat, oil’. The source of borrowing is not clear, however. The first part of the Assan compound represents an early period of borrowing due to the Assan regular change of *s-* to *š-*. The second part of the compound *jag* with initial *j-* cannot determine the source of borrowing; it only implies that it was a Siberian Turkic variety where the initial **y-* was still intact.

2 < **sāriḡ* + *Xš*. Turkic NN/Adj, which was added to color names; see Erdal (1991: 102).

Most of the compounds belong to the category of loanwords with a clear source of borrowing. As an example, see the next two Arin compounds *karananuk* ‘bilberry’ and *tegentestek* ‘raspberry’. The first was clearly borrowed from Yenisey Turkic, whereas the second was borrowed from Altay Turkic:

- (3) Arin *karananuk* ‘bilberry’ (Werner 2002/1: 411) ← Turkic *kara nonağ* ‘bilberry’
 < *qara* ‘black’: cf. Old Turkic *qara*; NE^S YeniseyT: Khakas *xara*; Sagai, Koibal, Kachin *qara*; Kyzyl *χara*; Shor *qara*; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *qara*; SayanT: Tuvan; Tofan *qara*; ChulymT *qara*; NE^N Yakut *xara*; Dolgan *kara* ~ *xara*; NW^N Siberian Tatar *qara*; NW^S Kirgiz *kara*; Fu-yü *gar*; Kazak *qara*; SE Yellow Uyghur *qara*.
 + *nonağ* ‘bilberry’ < (?) **yomaq* < **yumaq*;³ cf. (?) Old Turkic *yumaq* ~ *yumğaq* ‘a spherical or globular object’ < **yum*-;⁴ NE^S YeniseyT: Khakas *nonağ* ~ *noññix* ‘bilberry’; Sagai *nonağ* ‘bilberry’; Shor *nongam* ‘bilberry’, cf. *nonam* ~ *ninim* ‘blueberry’ (R); AltayT: Altay –; Quu *nunum* ‘bilberry’; SayanT: –; ChulymT –; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü –; Kazak –; SE Yellow Uyghur *džoma* ~ *džomaq* ‘edible plant’.

The Arin word was obviously borrowed from Yenisey Turkic. The second constituent of the compound, *nonağ*, shows a phonetic feature of Khakas where the regular change of Common Turkic initial *y*- to *n*- can be observed. This feature is typical for words with nasal consonants⁵ (Johanson 1998: 106).

- (4) Arin *tegentestek* ‘raspberry’ (Werner 2002/2: 257) ← Turkic *tegen d'estek*
 < *tegen* ‘thorn’ < *tikän* < **tik*- ‘to insert; to insert (in the ground), to sew (insert a needle)’ -*GAn* {Turkic VN, see Erdal 1991: 385}: cf. Old Turkic *tikän* ~ *tikänäk*,⁶ NE^S YeniseyT: Khakas *tigenek* ‘bot. dog rose, blackthorn; thorn’, cf. *tigen* ‘fir’; Sagai, Koibal, Kachin *tigän* ‘spruce, fir’; Shor *tigen* ‘fir’; AltayT: Altay *tegenek* ‘dog rose; thorn’, cf. *tegen* ~ *tēgen* ‘fir’; Tuba *tegen* ~ *tegenek* ‘thorn’; Qumanda *tigenek* ‘bot. hip’; Quu *tegenek* ‘bot. hip’, cf. *tigen* ‘fir’; Teleut *tegenek* ‘bot. hip, dog rose’; SayanT: Tuvan *ten* ‘thorn, needle’; Tofan *te^hen* ‘thorn; hip, raspberry’; ChulymT *tigän* ‘hip’; NE^N Yakut *tik*- ‘to sew; to sting’; Dolgan *tik*- ‘to sew’; NW^N Siberian Tatar –; NW^S Kirgiz *tiken* ‘thorn; splinter’, *tikenek* ‘prickle, thorn’; Fu-yü *dik*- ‘to put up, sew’; Kazak *tiken* ‘splinter, thorn’; SE Yellow Uyghur *tiken* ‘chaparral plant’.

3 The etymology of this Turkic word is unknown. Räsänen (VEWT 354b) quoted Yenisey Turkic data, but did not provide etymology. The word probably can be connected with Old Turkic *yumaq* ~ *yumğaq* ‘a spherical or globular object’ (Clauson 936a).

4 Cf. Old Turkic *yumur* ‘something round, globular, coiled’, *yumurtğa* ‘egg’, *yumuš* ‘circulating, an errand’, *yumuz* ‘round, globular’ (Clauson 934a).

5 E.g. Old Turkic *yan*- ‘to turn back’ ~ Khakas, Shor *nan*-; cf. Tofan *nān*-; Fu-yü *nan*-; Old Turkic *yağmur* ‘rain’ ~ Khakas *nañmür*; cf. Fu-yü *namür*; Old Turkic *yanı* ‘new’ ~ Khakas *nā*; Shor *nā* ~ *nā*; cf. Tofan *nā*; Fu-yü *nā*; etc.

6 < *tikän* + *AK* {Turkic diminutive; see Erdal 1991: 40}.

+ *d'estek* < *čestek* < *yestek* 'berry'⁷: cf. Old Turkic –; NE^S YeniseyT: Khakas *čistek* 'berry'; Koibal *yestäk* 'a berry which is similar in form with strawberry, raspberry, blackberry, etc.'; Shor *čestek* 'berry'; AltayT: Altay *d'estek* ~ *tistek* 'berry'; SayanT: –; ChulymT *yestäk* ~ *čästäkäi* 'wild strawberry'; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü –; Kazak –; SE Yellow Uyghur –.

The source of borrowing of the Arin compound word *tegentestek* 'raspberry' is clear. Both parts of the compound were borrowed from Altay Turkic. In comparison to other Siberian Turkic forms, Altay *tegen* is used without the diminutive suffix and has a voiced *VgV* in intervocalic position. In the second part of the compound *testek* < *d'estek*, the borrowing from Altay Turkic reflects the changing of Turkic initial *y-* to *d'-*⁸ (Johanson 1998: 97). It is important to mention that the Arin word was probably borrowed from an Altay Turkic dialect. In literary Altay, 'raspberry' is *agaš d'estek* 'tree berry'.

Genitive-linked compounds

Some borrowed compounds were derived in line with the Yeniseian structure, where a genitive marker is used between the two elements. Turkic languages display a similar structure in which the first element is normally marked by the genitive, and the second one by a third person possessive, e.g. Altay *d'er-diŋ üst-i* {land-GEN surface-POSS3SG} 'land surface'; *at-tiŋ bel-i* {horse-GEN back-POSS3SG} 'horse back'; Khakas *inek-tiŋ süd-i* {cow-GEN milk-POSS3SG} 'cow milk'; but *xakas til-i* {Khakas.NOM language-POSS3SG} 'Khakas language' (Baskakov 1947: 297; Baskakov & Grekul 1975: 282).

The source of borrowing of the following Arin data is not clear. A corresponding compound does not exist in Turkic. Yenisey Turkic and Altay Turkic use the Russian loanword *неделя* for 'week'.

- (5) Arin *kemenenčak* 'week' (Werner 2002/1: 422) ← Turkic *kemineŋ čak* < *kemineŋ* < *kem* 'measurement' + (X)*niŋ* {Turkic Genitive, see Tenišev 1988: 67} ← Mongolic *kem* 'measure; size, proportion; limits; measure of time, term': cf. Old Turkic –; NE^S YeniseyT: Khakas *kem* 'measurement'; AltayT: Altay *kem* 'time, period; measurement'; Qumanda *kemner* {+snAr Turkic Plural} 'measurement'; Quu *kem* 'measurement, period'; Teleut *kem* 'measurement'; SayanT: Tuvan *xemče-* 'to measure' (← Mongolic *kemji-*); Tofan *hem* 'measurement, size, weight'; ChulymT –; NE^N Yakut *kem* 'unit of measure; limit; measure of time, term'; Dolgan *kām* 'time, season'; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü –; Kazak –; SE Yellow Uyghur – ← Mongolic *kem*: LM *kem*; ModMo: Buryat *xem*; Khalkha *xem*; Oyrat dial. *kem*.

⁷ The etymology of this Turkic word is unknown; it can only be found in Yenisey and Altay Turkic languages (see SIGTJa 2001: 121–122).

⁸ E.g. Old Turkic *yōq* 'having nothing' ~ Altay Turkic *d'ok*; Old Turkic *yoğun* 'thick' ~ Altay Turkic *d'ōn*; Old Turkic *yēr* 'ground' ~ Altay Turkic *d'er*, etc.

+ *čak* ‘time, a point in time, a period of time’ ← Mongolic *čay* ‘time, period, season, age; time as general situation or set of circumstances; tense (*gram.*); hour; clock, watch; weather, climate’: cf. Old Turkic *čāg*; NE^S YeniseyT: Khakas *sax* ‘particle just, exactly’,⁹ Sagai, Koibal *sā*; Kachin, Shor *šak* ‘time’; AltayT: Altay *čak* ‘age, time’; Tuba *čak* ‘measurement, time, period’; Quu *čak* ‘time, period’; Teleut *čak* ‘time’; SayanT: Tuvan *šag* ‘time, period’, cf. *šak* ‘hour, time; clock’; Tofan *šag* ‘time, period’; ChulymT –; NE^N Yakut *sax* ‘time’; Dolgan *haga* ‘size’, cf. *hagīna* ‘while’; NW^N Siberian Tatar –; NW^S Kirgiz *čak* ‘time; period’; Fu-yü *šah* ‘time’; Kazak *šaq* ‘time, period’; SE Yellow Uyghur *čag* ‘time’ ← Mongolic *čay* ‘time, period’: MMo: MNT, HY; Muq. *čaq*; LM *čay*; ModMo: Buryat *sag*; Khalkha *cag*; Kalmuck *tsag*.

5. “Half-affixes” of Turkic origin

There is another group of Yeniseian compounds in which the Turkic loanword appears as a “half-affix”. For instance, the Turkic word *berke* ‘strong, stable’ appears in Arin compound words as a half-affix meaning ‘big, great, very’: Arin *berke* ~ *berek* ~ *birka* ‘big, great; very’ (Werner 2002, 1: 121) ← Turkic *berke* ‘very, strong’ ← Mongolic *berke* ‘difficult, hard; complicated, serious; skilful, competent, fit’ ← Turkic *bärk* ‘firm, stable, solid’.

cf. NE^S YeniseyT: –; AltayT: Quu *perge* ‘clever’; SayanT: Tuvan *berge* ‘difficult, hard’; ChulymT –; NE^N Yakut¹⁰ *berke* ‘adverb very, extremely, strongly; fine’; Dolgan *bärkä* ~ *bärgä* ‘adj. strong; adv. very’; NW^N Siberian Tatar –; NW^S –; SE – ← Mongolic *berke* ‘difficult, hard; burdensome, troublesome; complicated, serious; difficulty, hardship; trouble; skilful, competent, fit’: cf. MiddleMo: MNT *berke*; Ibn-Muh. *berke*; Muq. *bürke*; HY *berke*; LM *berke*; ModMo: Buryat *berxe*; Khalkha *berx*; Kalmuck *berkä* ← Turkic *bärk* ‘firm, stable, solid’: cf. Old Turkic *bärk*; NE^S YeniseyT: Khakas *pirik*; AltayT: –; SayanT: Tuvan *bert*,¹¹ Tofan *be^crt*; ChulymT *pērek*; NE^N Yakut *bert*; Dolgan *bär* ~ *bärt*; NW^N Siberian Tatar –; NW^S Kirgiz *berk*; Fu-yü –; Kazak *berik*; SE Yellow Uyghur *perik* ~ *perk* ‘big, important’, cf. *perik* ‘strong’.

There are two Arin examples with this half-affix, borrowed from the same Turkic compound word *berke tura* ‘big, great town’:

- (6) Arin *belkertura* ‘empire’ (Werner 2002/1: 121)
- (7) Arin *berketura* ‘city, town’ (Werner 2002/1: 121)
 < Arin *berke* ‘big, great’

9 Cf. *sağam* adverb ‘now, in this moment’.

10 Yakut → Tungusic: Ewenki dial. *berke* ‘agile, nimble; energetic; bold, brave; very, very much’ (SSTMJa 1: 127a).

11 < **bärk*. The change *-rk-* > *-rt-* is regular in Tuvan, e.g. Old Turkic *börk* ‘cap’ > Tuvan *bört*; Old Turkic *qorq-* ‘to fear, be afraid of’ > Tuvan *kort-*.

+ Turkic *tura* ‘town, village’: + *tura* ‘town, village’;¹² cf. Old Turkic *tura* ‘something to shelter behind’; NE^S YeniseyT: Khakas *tura* ‘house; town’, cf. ‘fort, village; building; room’; Sagai, Koibal, Kachin *tura* ‘house, building, city’; Shor *tura* ‘town’; AltayT: Altay *tura* ‘house, building; town’; Tuba; Qumanda; Quu; Teleut *tura* ‘house’; SayanT: –; ChulymT *tura* ‘town’; NE^N Yakut –; NW^N Siberian Tatar *tora* ‘town’; NW^S Kirgiz *turak* (< *tura* + AK {Turkic NN/Diminutive}) ‘residence, dwelling’; Fu-yü –; Kazak *turaq* ‘residence; site’; SE Yellow Uyghur –.

- (8) Arin *berkitak* ‘mountain’ (Werner 2002/1: 122)

< Arin *berke* ‘big, great’ + Turkic *tāg* ‘mountain’

+ *tag* ‘mountain’: cf. Old Turkic *tāg*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin; Kyzyl; Shor *tag*; AltayT: Altay; Tuba; Teleut *tū*; Qumanda; Quu *tag*; SayanT: Tuvan; Tofan *dağ*; ChulymT *tag*; NE^N Yakut; Dolgan *tīa* ‘land; forest, tundra’; NW^N Siberian Tatar *tau*; NW^S Kirgiz *tō*; Fu-yü *dah*; Kazak *taǵ*; SE Yellow Uyghur *tag*.

- (9) Arin *berkuštukdu* ‘strong’

< Arin *berke* ‘very’

+ *kuštuk* (← Turkic **küčtiig* ‘strong’) + *tu* {Yeniseian NN/Adj., see Georg 2007: 141}: + *küčtiig* ‘strong, powerful’

< **küč* ‘strength, power’ + *LXG* {Turkic NN/Adj., see Erdal 1991: 121}: cf. Old Turkic *küčliig*; NE^S YeniseyT: Khakas *küstiig* < *küs*; Sagai, Koibal *küs*; Kachin *küş*; Kyzyl *kuš*; Shor *küštiig* < *küş*; AltayT: Altay; Tuba; Qumanda; Quu *küč*; Teleut *küčtū* < *küč*; SayanT: Tuvan; Tofan *küş*; ChulymT *küč*; NE^N Yakut; Dolgan *kūs*; NW^N Siberian Tatar *köc*; NW^S Kirgiz *küč*; Fu-yü *güštih*; Kazak *küş*; SE Yellow Uyghur *kuš*.

The Turkic word also appears in native Yeniseian words as a “half-affix”, e.g. Arin *berek argidu* ‘pleasant’; *berek sopa* ‘salty’ (cf. *sopa* ‘sour, bitter’), *berekšet¹u* ‘I love’, *berekisper¹a* ‘I feel’, etc. (see Werner 2002/1: 121–122).

Another Yeniseian half-affix of Turkic origin is *öy* ‘step-’, which derives Arin compound words of kinship terminology:

Arin *oj-* ‘step-’ (Werner 2002/1: 32, 33) ← Turkic *öy* < *ögey*: cf. Old Turkic *ögey* ‘related through one parent only, step-(father, etc.)’; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin; Shor *öy*; AltayT: Altay *öy* ~ *öy*; Qumanda *öy*; Teleut *öy*; SayanT: –; ChulymT –; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz *ögöy*; Fu-yü –; Kazak *ögey*; SE Yellow Uyghur –.

There are three words indicating marital relations borrowed from Siberian Turkic. The first Arin word *ojče* ‘stepmother’ was clearly borrowed from Yenisey Turkic,

12 According to Radloff (R 3: 1446), the authors of ESTJa (1980: 301) and Räsänen (VEWT 500ab), the Turkic word *tura* ‘house, town’ derived from the verb *tur-* ‘to stand; to stand upright; to stand still’. The Turkic word was borrowed into Mongolic languages, cf. LM *tur-a* ‘fortress, city, town’; ModMo: Buryat *tura*; Khalkha *tur*.

while the other two appear with the Yeniseian words *akel* ‘son’ and *akel’a* ‘daughter’ with the Yeniseian feminine suffix.

(10) Arin *ojče* ‘stepmother’ (Werner 2002/2: 32)

< Arin *oj* ‘step-’ + Turkic *ije* ‘mother’: cf. YeniseyT: Khakas *ōy ije*; Sagai, Koibal, Kachin *ūy ijā* ‘stepmother’;¹³

+ *ije* < **eče* ‘mother’: cf. Old Turkic *eče* ‘one’s mother’s younger sister; one’s own elder sister’; NE^S YeniseyT: Khakas *ije* ‘mother’; Sagai *ijā*; Koibal, Kachin *ijā*; Shor *ūjā* ‘grandmother from father’s side’; AltayT: Altay *ed’e* ‘aunt; elder sister’, cf. *ačī* ‘father’s younger brother’; Tuba *ed’e* ‘aunt; elder sister; mother’; Qumanda *ed’e* ‘aunt, elder sister’; Quu *edže* ~ *eže* ‘elder sister, sister’; Teleut *eye* ‘aunt, elder sister’; SayanT: Tuvan *ača* ‘father’; Tofan *aja* ‘father’, cf. *i’he* ‘mother’; ChulymT *ēcā* ‘mother’; NE^N Yakut *iye* ‘mother’, cf. *ehe* ‘grandfather; bear’; NW^N Siberian Tatar –; NW^S Kirgiz *eže* ‘elder sister’; Fu-yü *ije* ~ *iji* ‘mother, elder sister’; Kazak *āže* ‘grandmother’; SE Yellow Uyghur *ača* ‘father; stepfather’.

The Arin compound word was possibly borrowed from Yenisey Turkic. In Altay Turkic, we have another compound *ōy ene* ‘stepmother’.

(11) Arin *ojakelbala* ‘stepson’ (Werner 2002/2: 32)

< Arin *oj* ‘step-’ + Arin *akel* ‘son’ + Turkic *bala* ‘child’: cf. YeniseyT: Khakas *ōy pala*; Shor, Sagai, Koibal, Kachin *ūy pala* ~ *ōy pala*; AltayT: Altay, Teleut *ōy pala* ‘stepchild’

+ *bala* ‘child, son, boy’: cf. Old Turkic *bala*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin *pala*; Kyzyl *pāla*; Shor *pala*; AltayT: Altay *bala*; Tuba *pala* ‘child, son’; Qumanda *pala* ~ *bala* ‘child, boy’; Quu *pala* ‘child’; Teleut *pala*; SayanT: –; ChulymT *pala* ‘son’; NE^N Yakut –; NW^N Siberian Tatar *pala*; NW^S Kirgiz *bala* ‘child, son, grandson’; Fu-yü *bala* ‘child’; Kazak *bala* ‘child, boy’; SE Yellow Uyghur *mīla* ‘baby’.

(12) Arin *ojakel’a* ‘stepdaughter’ (Werner 2002/2: 33)

< Arin *oj* ‘step-’ + Yeniseian *akel’a* ‘daughter’ < *akel* + *a* (Yeniseian feminine suffix).

It is important to note that the half-affixes of Turkic origin follow the original Turkic order. The half-affix of Turkic origin is in the first syllable, whereas the Yeniseian half-affix is in the second syllable. Compare some Ket words such as *ámmas* ‘stepmother’, *húnnas* ‘stepdaughter’ and *óbnas* ‘stepfather’ with the Yeniseian half-affix **pas*, which denotes the non-consanguineous relationship.

7. Amalgamations

A special group includes assimilated amalgamations.

13 The Turkic compound word was borrowed to Samoyedic as well. See Kamas *ugeija* ‘stepmother’ < *ija* ~ *ijā* ~ *ja* ‘mother’ (Joki 1952: 250; 136–137).

- (13) Kott *tôteäš* ~ *toteš*, Assan *toteš* ‘Siberian fir (*lat. Abies sibirica*)’ (Werner 2002/2: 280)
 ← Turkic *tüt ağas*, cf. YeniseyT: Khakas *tüt ağas*; Kyzyl *tüt ağaš* ‘larch’
 < *tüt* ‘larch (*lat. Pinus Larix*)’: cf. Old Turkic *tüt*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin; Kyzyl; Shor *tüt*; AltayT: Altay; Qumanda; Quu; Teleut *tüt*; SayanT: Tuvan *düt*; Tofan *tüt*; ChulymT *tüt*; NE^N Yakut; Dolgan *tüt*; NW^N Siberian Tatar –; NW^S Kirgiz –;¹⁴ SE Yellow Uyghur –
 + *ağas* ‘tree’: cf. Old Turkic *ığač*; NE^S YeniseyT: Khakas *ağas*; Sagai *agīs*; Koibal *ağas* ~ *agīs*; Kyzyl *ağas* ~ *āgaš*; Shor *agaš*; AltayT: Altay *ağas*; Tuba *agaš* ~ *aṇaš* ~ *āč*; Qumanda *agač* ~ *agaš*; Quu *agač* ~ *agaš* ~ *agīs*; Teleut *agaš*; SayanT: Tuvan *iyaš*; Tofan *neš*; ChulymT *agač* ~ *agac* ~ *āč*; NE^N Yakut –; NW^N Siberian Tatar *agac* ~ *agač*; NW^S Kirgiz *jığač*; Fu-yü *agaš* ~ *agīs*; Kazak *ağas*; SE Yellow Uyghur *yığaš*.

Kott *tôteäš* ‘Siberian fir’ possibly originates from the Turkic compound *tüt ağas* ‘larch’. In the second part of the Yeniseian word *eäš*, the Turkic consonant -ğ- was dropped and then this influenced the first part of the compound, which was pitched.

- (14) Kott *kalači* ‘eagle’ (Werner 2002/1: 405) ← Turkic *qal lačīn*
 < *qal* ‘strong’: cf. Old Turkic *qal* ‘wild, savage, mad’; NE^S YeniseyT: Khakas *xal* ‘desperate, fearless, impenetrable; unresponsive; inexperienced’; Sagai *xal* ‘powerful, brave’; cf. Sagai, Kachin *kal*; Kyzyl *qal* ‘strong’; Shor *qal* ‘insensitive, cruel’; AltayT: Altay *kal* ‘daring’; Teleut *qal* ‘coarse’; SayanT –; ChulymT –; NE^N –; NW^N Siberian Tatar *qal* ‘stupid, blunt’; NW^S –; SE Yellow Uyghur –
 + *lačīn* ‘falcon’¹⁵: cf. Old Turkic *lāčīn*; NE^S YeniseyT: Khakas *ilačīn*; Sagai *lačīn*; Shor *lačīn*; AltayT: Quu *lačīn*; SayanT: Tuvan –;¹⁶ ChulymT –; NE^N –; NW^N Siberian Tatar *ilacīn* ‘kite’; NW^S Kirgiz *ilāčīn*; Fu-yü –; Kazak *lašīn*; SE Yellow Uyghur –.
- (15) Kott *tátien* ‘hill’ (Werner 2002/2: 245) ← Turkic *tā tōṇ*
 < *tag* ‘mountain’: cf. Old Turkic *tāğ*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin; Kyzyl; Shor *tag*; AltayT: Altay; Tuba; Teleut *tū*; Qumanda; Quu *tag*; SayanT: Tuvan; Tofan *dağ*; ChulymT *tag*; NE^N Yakut; Dolgan *tīa* ‘land; forest, tundra’; NW^N Siberian Tatar *tau*; NW^S Kirgiz *tō*; Fu-yü *dah*; Kazak *taū*; SE Yellow Uyghur *tag*
 + *tōṇ* ‘hill’: cf. Old Turkic –; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin *tōṇ* ‘hill’; Kyzyl *tōk*; Shor *tōṇ* ‘mound’; AltayT: Altay; Teleut *tōṇ* ‘mound, hill, elevation’; Tuba *tōṇ* ‘hill’; Qumanda *tōn* ‘mound, hill, elevation; stump’; Quu *tōṇ* ‘hill’; SayanT: Tuvan;

14 Kirgiz *tüt* ~ *tut* ‘tut (*derevo i jagoda*)’, Kazak *tut* ‘tutovoe derevo, tutovnik’, which belong to another Turkic word of Persian origin (for details see SIGTJa 2001: 136).

15 The Turkic word is of unknown origin (see Doerfer TMEN 4: 11–14; Räsänen VEWT 313b; Clauson 763b; SIGTJa 2001: 170). According to Clauson (763b), it is of Tocharian origin. From Turkic the word was borrowed to Mongolic, cf. MMo: Precl.Mo. *načīn* ‘falcon’; LM *načīn*; ModMo: Khalkha *načīn*; Buryat *našan*; Kalmuck *natšn*.

16 Tuvan *načīn* ‘falcon’ (title given to a wrestler who wins) ← Mongolic (Khabtagaeva 2009: 63).

Tofan *döŋ* ‘hummock; hill’; ChulymT *töŋ* ‘hill’; NE^N Yakut –; NW^N Siberian Tatar *tüŋ* ‘elevation, small hill’; NW^S Kirgiz *döŋ* ‘elevation, hill’; Fu-yü –; Kazak *döŋ* ‘mound, hill, elevation’; SE Yellow Uyghur –;

The etymology of the Kott word *tátien* ‘hill’ is unclear. I assume that it originates from a combination of the Turkic words *tag* ‘mountain’ and *töŋ* ‘hill’. It is clear that the first element is a borrowing of a Turkic word with a long vowel, while the Turkic vowel -ö- was changed to diphthong -ie- in Yeniseian.

Hybrid compounds

The next group consists of hybrid words, where one part is of Turkic origin and the other of Yeniseian origin:

- (16) Kott *ânar* ~ *anar* ‘hip, loin’ (Werner 2002/1: 34)

< *an* (← Turkic) + Yeniseian *ar* ‘bone’ (Vajda & Werner: in preparation): Yeniseian *an* ← Turkic *han* < *yân* ‘the hip; the side, flank of the body or in other contexts’: cf. Old Turkic *yân*; NE^S YeniseyT: Khakas *nan* ‘upper thigh, side’; Sagai *čan* ~ *nan* ‘side’; Shor *čan* ‘side’; AltayT: Altay; Tuba *d’an* ‘side’; Qumanda *d’an* ~ *yan* ‘side’; Quu *han* ‘thigh, side’; Teleut *yan* ‘side’; SayanT: Tuvan *čan* ‘neighbourhood’; Tofan *han* ‘anat. upper thigh, side; jamb; near’; ChulymT *yaŋ* ~ *čaŋ* ‘side’; NE^N –; NW^N –; NW^S Kirgiz *jan* ‘side’; Fu-yü –; Kazak *žan* ‘side; near’; SE Yellow Uyghur *yan* ‘side’.

The first component of Kott *ânar* ~ *anar* ‘hip, loin’ is the Turkic word *yân* meaning ‘the hip; the side, flank of the body or flank in other contexts’. The borrowed Turkic form possibly had an initial *h*- which sporadically appears in some Siberian Turkic languages due to assimilation to following nasals.¹⁷ The Turkic initial **n*- was dropped in the Kott form due to the final -*n* or because of the absence of original initial *h*- and *n*- in Yeniseian (Starostin 1982: 163). Also, Yeniseian words do not normally begin with a nasal consonant.

- (17) Kott *atuš* ‘gelding’ (Werner 2002/1: 80)

< *at* (← Turkic) ‘horse’ + Yeniseian *uš* ‘horse’ (Werner 2002, 1: 457): Turkic *at* ‘horse, riding horse, gelding’: cf. Old Turkic *at*; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin; Kyzyl; Shor *at*; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *at*; SayanT: Tuvan; Tofan *a^ct*; ChulymT *at*; NE^N Yakut; Dolgan *at*; Yakut dial. *at* ‘donkey’; NW^N Siberian Tatar –; NW^S Kirgiz *at*; Fu-yü *at*; Kazak *at*; SE Yellow Uyghur *at*.

- (18) Kott *tâmukol* ‘tobacco tin’ (Werner 2002/2: 236)

< *tâmuk* ‘tobacco’ (← Turkic) + Yeniseian *ol* ‘container’ (Werner 2002, 2: 48): Turkic *tamkî* ‘tobacco’ ← Persian: cf. Old Turkic –; NE^S YeniseyT: Khakas *tamġi* ~ *tamkî* ~ *temkî* ~ *tāxpî*; Sagai *tamqî* ~ *tāmki*, Koibal, Kachin *tamqî*; Kyzyl *tāmkkî*; Shor *tapqî*; AltayT: Altay *tamkî* ~ *taŋkî*, cf. *taŋqū* (R); Quu *takpî*; Teleut *tamqî*; SayanT: Tuvan

17 On Turkic sound shifts, see Johanson (1998: 106).

tapki; Tofan *tamhi* ~ *tamihi*; ChulymT *tämkä*, cf. *tamqū* ~ *tāmkū* (R); NE^N Yakut –, ¹⁸ NW^N Siberian Tatar *tamaq*; NW^S Kirgiz *tameki*; Fu-yü –; Kazak *temeki*; SE Yellow Uyghur *tamaqī*.

- (19) Kott *pačasulema* ‘sabre’ (Werner 2002/2: 172)

< Yeniseian *pača* ‘big, large’ (Werner 2002/2: 51)

+ *sulema* (← Turkic): Turkic *seleme* ‘sabre, sword’ ← Mongolic *seleme* ‘sabre, sword’ ← Tungusic *seleme* ‘sabre, sword’ < *sele* ‘iron’ + *mA* {NN/Adj., see Vasilevič 1958: 769}; ¹⁹ cf. Old Turkic –; NE^S YeniseyT: Khakas *selmey* ‘sword, weapon’; AltayT: –; SayanT: Tuvan *seleme* ‘sabre, sword’; Tofan *seleme* ‘sabre’; ChulymT –; NE^N –; NW^N Siberian Tatar –; NW^S Kirgiz *selebe* ‘sabre, sword’; Fu-yü –; Kazak *selebe* ‘large kitchen knife’; SE Yellow Uyghur – ← Mongolic **seleme*: cf. LM *seleme* ‘sabre, sword’; ModMo: Buryat *helme*; Lower Uda Buryat *helme* ~ *xelme*; Khalkha *selem*; Kalmuck *selmā* ← Tungusic *seleme*: NorthernT: Evenki *selmi* ‘metal weapon’; Solon *selem* ~ *selemen* ‘sabre’; Negidal *seleme* ‘metal’; SouthernT: Manchu *seleme* ~ *selemu* ‘sword’; Ulcha; Oroch *seleme* ‘metal’ (SSTMJa 2: 140).

Metathesis

In some cases it is very difficult to recognize the source of borrowing or the etymology of a word. Certain Yeniseian words sporadically exhibit metathetic forms, which are a distinctive feature of Yeniseian languages. (For details and examples see Vajda 2013.) I put these words into the category of words with unclear and problematic etymology.

- (20) Kott *tarup* ~ *tarūp* ‘chamois leather’ (Werner 2002/2: 243) ← ? Turkic **tup tere*: cf. Altay *tup tere* ‘tanned leather’

< *tup* ‘tanned leather’ ← Russian *dub* ‘oak, oakwood’; ²⁰ cf. Old Turkic –; NE^S YeniseyT: Sagai, Koibal *tūp* ‘the leather for tanning’; Kyzyl –; AltayT: Altay *tup [tere]* ‘tanned leather (used for shaman’s drum)’; Quu *tuṭta-* (< **tup* + *tA-* {Turkic NV, see Erdal 1991: 455}) ‘to tan leather’; Teleut *tuṭta-*; SayanT: –; ChulymT –; NE^N Yakut –; NW^N Siberian Tatar *tup* ‘dried bark of willow (used for tanning of leather)’; NW^S Kirgiz –; Fu-yü –; Kazak –; SE Yellow Uyghur –

+ *tāri* ‘the skin, hide (of a human being or animal)’: cf. Old Turkic *tāri*; NE^S YeniseyT: Khakas *tēr* ~ *tēri* ~ *tire*; Shor *tārä*; Sagai, Koibal *ter* ~ *terä*; AltayT: Altay *tere*; Tuba *tere* ~ *ter*; Qumanda; Quu *tere*; Teleut *tārä*; SayanT: Tuvan –; Tofan *te^rhi* ‘straps of saddle’; ChulymT *tārä*; NE^N Yakut; Dolgan *tirī*; NW^N Siberian Tatar *tārä*; NW^S Kirgiz *teri*; Fu-yü *dir*; Kazak *teri*; SE Yellow Uyghur *ter* ~ *terä* ~ *tere* ~ *terī*.

18 Yakut *tabax* ‘tobacco’ ← Russian.

19 For the etymology of the Tungusic word and its borrowings into other languages, see Räsänen (VEWT 409a), Rassadin (1971: 102), SSTMJa (2: 140), Anikin (2000: 510), SIGTJa (2001: 412–413), Stachowski (2004), Khabtagaeva (2009: 192).

20 Cf. *дубильная кожа* ‘tanned leather’ (Fasmer 1: 547–548).

- (21) Kott *uŋôjaŋ* ‘why’ (Werner 2002/2: 351) ← ? Turkic **noĝa uĉun*: cf. AltayT: Altay, Teleut *neniŋ uĉun*; Khakas *noĝa*; Old Turkic *näĝü üčün* ‘why?’
 < *noĝa* < *näĝü* ‘why’ < *nä* ‘what?’ + *GU* {NN, see Clauson xl}: cf. Old Turkic *näĝü*; NE^S YeniseyT: Khakas *noĝa* ‘why’; Sagai, Koibal, Kachin *noĝa* ‘where?’, *noniŋ üjün* ‘why?’; Kyzyl –; Shor *nôĝa*; AltayT: Altay *neniŋ* (< *ne* ‘what’ + *nIŋ* {AltayT Ablative}); Tuba; Teleut *neniŋ*; SayanT: –; ChulymT *noĝa*; NE^N Yakut –; NW^N Siberian Tatar *ni*; NW^S Kirgiz *nege*; Fu-yü *n'em* ‘what?’; Kazak *nege*; SE Yellow Uyghur *nege* + *uĉun* ‘because of, for the sake of, for; because, in order to’: cf. Old Turkic *üčün*; NE^S YeniseyT: Khakas *üčün*; Sagai *üjün*; Sagai, Koibal *üzün*; Kyzyl *üzün*; Shor *üčün*; AltayT: Altay; Tuba; Qumanda; Teleut *uĉun*; Quu *uĉun* ~ *üčün*; SayanT: Tuvan *užun*; Tofan –; ChulymT *üčün*; NE^N Yakut; Dolgan *ihin*; NW^N Siberian Tatar –; NW^S Kirgiz *üčün*; Fu-yü –; Kazak *üşin*; SE Yellow Uyghur –.

The etymology of the Kott word is unknown. As a hypothesis, I suggest that Kott *uŋôjaŋ* ‘why’ consists of the words *uŋo* and *ôjaŋ*. The second part is clear; it has developed from Turkic *uĉun* ‘because’. The first part *uŋo* is problematic. It may come from **nuĝo*.

- (22) Kott *ureäk* ‘green’ (Werner 2002/2: 352) ← ? Turkic **kök arak*
 < *kök* ‘blue’
 + *arax*²¹ {Khakas Diminutive particle for Adjective forms²², see Baskakov & Inkižekova-Grekul 1953: 407}, cf. Khakas *kök-arax* ‘greenish’: < *kök* < *kök* ‘blue, green’: cf. Old Turkic *kök* ‘the sky; sky-coloured, blue, blue-grey’; NE^S YeniseyT: Khakas *kök* ‘green, blue; grass’; Sagai, Koibal, Kachin; Shor *kök*; Kyzyl *kök*^x; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *kök*; SayanT: Tuvan; Tofan *kök*; ChulymT *kök*; NE^N Yakut *küöx*; Dolgan *küök* ~ *küöx*; NW^N Siberian Tatar *kük*; NW^S Kirgiz *kök*; Fu-yü *göh*; Kazak *kök*; SE Yellow Uyghur *kök*.

The etymology of the Kott word is unknown. The Turkic word is semantically close to the Kott word. The Kott word is possibly composed of the shortened form of Turkic *kök* ‘blue, green’ and the Yenisey Turkic diminutive particle *arax*. The palatalization of vowels can be explained by the absence of synharmony in Yeniseian languages. The change may also have happened under the influence of the first constituent. The disappearance of the first syllable *kö-* is problematic. Also, due to metathesis, under the influence of the final consonant *-k*, the initial *k-* may have been dropped and the vowel *-ö-* in the first syllable changed to the diphthong *-eä-*.

- 21 The Khakas particle can possibly be connected with the Old Turkic suffix +*rAk*, which forms elatives and comparatives, e.g. *küčlügräk* ‘stronger’ < *küčlög* ‘strong’ < *küč* ‘power’, *küčsüzräk* ‘weaker’ < *küčsüz* ‘weak’, *bäkräk* ‘stronger’ < *bäk* ‘lord, master’ etc. (for details see Erdal 1991: 62–64).
 22 E.g. *xizil-arax* ‘reddish’ < *xizil* ‘red’, *xara-arax* ‘blackish’ < *xara* ‘black’, *silig-arax* ‘less beautiful’ < *silig* ‘beautiful’, *kičig-arax* ‘a little smaller, a little less’ < *kičig* ‘small’.

Combinations of word classes

From a typological point of view, it is important to mention that the borrowed Turkic compounds follow the Yeniseian structure, which is similar to that of Turkic: Noun + Noun, Adjective + Noun, and Verb + Noun.

(23) Noun + Noun

Arin *ba[g]akulak* ‘mussel’ (Werner 2002/1: 109) ← Turkic *bağa qulaq*, cf. Khakas *pağa xulaği*²³ ‘mussel’

< *bağa* < *baqa* ‘frog’: cf. Old Turkic *baqa*; NE^S YeniseyT: Khakas; Sagai; Shor *pağa*; AltayT: Altay *baqa*; Tuba; Teleut *paqa*; Qumanda; Quu *baka*; SayanT: Tuva *paga*; Tofan *bağa*; ChulymT *mağa*; NE^N Yakut *bağa*; Dolgan –; NW^N Siberian Tatar *pağa* ~ *mağa* ~ *maqa* ~ *baxa*; NW^S Kirgiz *baka*; Fu-yü –; Kazak *baqa*; SE Yellow Uyghur *paqa*

+ *qulaq* ‘ear’: cf. Old Turkic *qulaq* ~ *qulqaq*; NE^S YeniseyT: Khakas *xulax*; Sagai, Koibal, Kachin; Shor *qulaq*; Kyzyl *χulaχ*; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *qulaq*; SayanT: Tuva; Tofan *qulaq*; ChulymT *qulaq*; NE^N Yakut *kulgāx*; Dolgan *kulgā(k)* ~ *kulgak*; NW^N Siberian Tatar *qulaq*; NW^S Kirgiz *kulak*; Fu-yü *gulah*; Kazak *qulaq*; SE Yellow Uyghur *qolaq*.

The etymology of the Arin compound *bagakulak* ‘mussel’ is clear; it is possibly a borrowing from Yenisey Turkic, cf. Khakas *pağa xulaği*. However, the semantic change from ‘ear of frog’ to ‘mussel’ is interesting.

(24) Adjective + Noun

Arin *karasek* ‘fly’ (Werner 2002/1: 411) ← Turkic *qara sēk*, cf. YeniseyT: Khakas *xara sēk*; Sagai Koibal, Kachin *qara sāk* ‘fly’:

< *qara* ‘black’: cf. Old Turkic *qara*; NE^S YeniseyT: Khakas *xara*; Sagai, Koibal, Kachin; Shor *qara*; Kyzyl *χara*; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *qara*; SayanT: Tuva; Tofan *qara*; ChulymT *qara*; NE^N Yakut *xara*; Dolgan *kara* ~ *xara*; NW^N Siberian Tatar *qara*; NW^S Kirgiz *kara*; Fu-yü *gar*; Kazak *qara*; SE Yellow Uyghur *qara*

+ *sēk* ‘fly’ < *siṇek* ‘a buzzing insect’ < **siṇ*²⁴ + *AK* {Turkic Diminutive, see Erdal 1991: 40}: cf. Old Turkic *siṇäk*; NE^S YeniseyT: Khakas *sēk* ‘fly’; Sagai, Koibal, Kachin *sāk*; Shor *sēk* ‘mosquito’; AltayT: Altay *sēk* ‘gadfly’, cf. *sek* ‘mosquito’; Qumanda *sēk* ‘mosquito’; Quu *sek* ~ *sēk* ‘mosquito, midge’, cf. *sāk* ‘sandfly’ (R); SayanT: Tuva; Tofan *sēk* ‘fly’; ChulymT *sēk* ‘mosquito’, cf. *kara sēk* ‘midge’; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü *sīh* ‘fly’; Kazak –; SE Yellow Uyghur *siṇgek* ‘insect in cattle’.

(25) Verb + Noun

Kott *taripan* ‘field’ (Werner 2005: 117)

23 The Khakas form *xulaği* is used according to Turkic rules with possessive marker of 3rd person +(s)X.

24 The base of the word is of onomatopoeic origin.

< Turkic *tari-* ‘to cultivate ground’ + Yeniseian *baŋ* ‘earth, ground’ (Vajda & Werner: in preparation): < *tari-* ‘to cultivate ground’: cf. Old Turkic *tari-*; NE^S YeniseyT: Khakas *tari-*; Sagai, Koibal, Kachin *tara-*; AltayT: Altay *tari-*; Quu *tara-*; Teleut *tari-*; SayanT: Tuvan; Tofan *tari-*; ChulymT *tara-*; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz *tari-*; Fu-yü *dar-* ‘to plant’; Kazak *tari* ‘millet’; SE Yellow Uyghur *tari-* ~ *taru-*.

The last word of this category is a hybrid. The Kott word *taripan* ‘field’ consists of the Turkic verb *tari-* ‘to cultivate soil’ and the Yeniseian noun *baŋ* ‘earth, ground, soil’.

Combinations atypical for Yeniseian and Turkic

The regular word order is Adjective + Noun, but there are two compounds where combinations atypical for both Yeniseian and Turkic can be found:

(26) Noun + Adjective

Arin *balgaš bore* ‘dirt’ (Werner 2002/1: 99) ← Turkic *balgaš boro*
 < *balgaš* ‘mud; dirty, dirtiness’²⁵ < **balkač* < **balčiq*: cf. Old Turkic *balčiq*; NE^S YeniseyT: Khakas *palgas* ~ *palgaš*; Sagai, Koibal *palgas*, cf. Sagai, Koibal, Kachin *palčak*; Kyzyl *palja š*; Shor *palgaš*; AltayT: Altay *balkaš*; Tuba *balgaš*; Qumanda *malgaš* ~ *malgač*; Quu *palgaš*; Teleut *palqaš*; SayanT: Tuvan *malgaš*; Tofan *ba^clhaš*; ChulymT *palčiq* (R); NE^N Yakut *čalbax*; Dolgan *čalbak*; NW^N Siberian Tatar *palčik*; NW^S Kirgiz *balčiq*; Fu-yü *balgaš*; Kazak *balšiq*; SE Yellow Uyghur –
 + *boro* ‘grey’²⁶ ← Mongolic *boro* ← Turkic **bōrō*
 < *bōz*: cf. NE^S YeniseyT: Khakas; Sagai, Koibal; Shor *pora*; AltayT: Altay *boro*; Tuba *bor(o)* ‘grey (colour of horse)’, cf. *poro* ‘grey’; Qumanda *boro* ‘grey-brown’, cf. *poro* ‘grey’; Quu *boro*; Teleut *poro*; SayanT: Tuvan; Tofan *bora*; ChulymT *pora*; NE^N Yakut; Dolgan *boron*; NW^N Siberian Tatar –; NW^S Kirgiz –; Fu-yü *bor* ‘violet’ (?); Kazak –; SE Yellow Uyghur – ← Mongolic **boro* ‘grey’: cf. MMo: MNT, Precl.Mo, HY *boro*; Muq. *bora*; LM *boro* ~ *bora*; ModMo: Buryat *boro*; Khalkha *bor*; Kalmuck *bor^o* ← Turkic **borō* < **bōz*: cf. Old Turkic *bōz* ‘grey’; NE^S YeniseyT: –; AltayT: Altay –; Tuba *bos* ‘grey’; Qumanda *pos* ‘grey’, cf. *pus* ‘whitish colour of horse’; Quu *pos*; Teleut *pos*; SayanT: Tuvan *bos* ‘gray duck; drake’; Tofan *bos* ‘mallard’; ChulymT –; NE^N Yakut –; NW^N Siberian Tatar *büz* ‘white’; NW^S Kirgiz *boz* ‘light grey’; Fu-yü *bos* ‘grey’; Kazak *boz* ‘earthy-gray; feather grass’; light grey’; SE Yellow Uyghur *poz* ‘reddish colour; white grey’.

(27) Arin *kusku kōk* ‘raven’ (Werner 2002/1: 455) ← Turkic *kuskun kōk*

< *quzğun* ‘raven’: cf. Old Turkic *quzğun*; NE^S YeniseyT: Khakas *xusxun*; Sagai, Koibal, Kachin; Shor *qusqun*; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *qusqun*; Sa-

25 Turkic → Samoyedic: Kamas *baljaš* ‘dirt, mud’ (Joki 1952: 81).

26 Turkic → Samoyedic: Kamas *bora* ‘grau’ (Joki 1952: 96).

yanT: Tuvan; Tofan *qusqun*; ChulymT *qusqun*; NE^N Yakut –; NW^N Siberian Tatar –; NW^S Kirgiz *kuzgun*; Fu-yü –; Kazak *quzğın*; SE Yellow Uyghur *quzğun*; + *kök* ‘blue’;²⁷ cf. Old Turkic *kök* ‘the sky; sky-coloured, blue, blue-grey’; NE^S YeniseyT: Khakas; Sagai, Koibal, Kachin *kök*; Shor *kök*; Kyzyl *kök*^x; AltayT: Altay; Tuba; Qumanda; Quu; Teleut *kök*; SayanT: Tuvan; Tofan *kök*; ChulymT *kök*; NE^N Yakut *küöx*; Dolgan *küök* ~ *küöx*; NW^N Siberian Tatar *kük*; NW^S Kirgiz *kök*; Fu-yü *göh*; Kazak *kök*; SE Yellow Uyghur *kök*.

New etymologies

I have found several words with false etymologies. For instance, according to Werner, the Kott word *koaskir* ‘ram’ has a Yeniseian etymology; i.e. it is compounded from *koi* ‘sheep’ and *askir* ‘stallion’. Note that both of these elements are Turkic loanwords. I assume that Kott *koaskir* ‘ram’ was borrowed from Yenisey Turkic *qoskar*, which is *qoç* ~ *qoçñār* in Old Turkic with the same meaning.

- (28) Kott *koaskir* ‘ram’ (Werner 2002/1: 437) ← Turkic *qosqar*:
 < **qoçqar* < *qoçñār* < **qoçun*²⁸ + *GAr* {Turkic NN}: cf. Old Turkic *qoç* ~ *qoçñār*; NE^S YeniseyT:²⁹ Khakas *xosxar* ‘goat’; AltayT: Altay *kočkor* ‘ram’; Tuba; Quu; Teleut *qoçqor*; SayanT: Tuvan *koškar*; Tofan³⁰ –; ChulymT –; NE^N Yakut –; NW^N Siberian Tatar *qoçqar* ~ *qoçqār* ~ *qucqar*; NW^S Kirgiz *kočkor*; Fu-yü –; Kazak *qoşqar*; SE Yellow Uyghur *qoʻzgar* ~ *qužgar*.

Conclusions

Among the Turkic languages, only Siberian Turkic has had direct contact with Yeniseian. It seems that two layers can be distinguished: Yenisey Turkic³¹ and Altay Turkic.³² According to phonetic criteria, most of the loanwords belong to the later period of borrowing.

From a morphological point of view, some Turkic loanwords follow the Yeniseian structure (Noun + Noun, Adjective + Noun). The predominant noun formation technique of Yeniseian is compounding. Therefore, the current topic on

27 Turkic → Samoyedic: cf. Koibal *kok* ‘blau, grün’ (Joki 1952: 187).

28 According to Ščerbak (1961: 111) and ESTJa (2000: 89), the Turkic form **qoçun* has some connection to *qoç*, which is morphologically similar to the Turkic words *qōy* ~ *qōñ* and *qoyun* ‘sheep, ewe’.

29 Cf. Khakas *xuča*, Sagai, Shor *quča* ‘ram’, which is the Mongolic loanword, but ultimately of Turkic origin.

30 Tofan for ‘ram’ uses the compound *asqır hoy* < *asqır* ‘stallion, male’ + *hoy* ‘sheep’, cf. Kott *koaskir* ‘ram’.

31 Yenisey Turkic includes the Khakas language with its dialects Sagai, Koibal, Kachin, Kyzyl and Shor.

32 The Altay Turkic group can be divided into the northern and southern subgroups. The Qumanda, Quu and Tuba kiži dialects belong to the northern subgroup, while Literary Altay or Oyrot belongs to the southern subgroup.

compound loanwords is very important for Yeniseian historical morphology. The main features of the Yeniseian compound words of Turkic origin are as follows:

1. The combinations of different word classes are similar to Yeniseian.
2. The presence of “half-affixes” of Turkic origin, e.g. the half-affix *õy* ‘step-relative’, indicates that Yeniseian and Turkic-speaking people had marital connections with each other.
3. There are some hybrid compounds, where one element is Turkic, and the other one is Yeniseian.
4. Metathesis, which is a distinctive feature of Yeniseian, affects some Turkic compound words.

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Report

Report on *The 17th International Conference on Turkish Linguistics*, September 3–5, 2014, Rouen, France

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The 17th International Conference on Turkish Linguistics (ICTL) was hosted by Rouen University (France), 3–5 September, 2014. The event attracted much interest from a wide range of disciplines. Traditionally, the ICTL conference is a platform for scholars working in the field of Turkic linguistics. This time the organizers received abstracts covering a breadth of topics ranging from carpet colors to Turkish poetry. Some of the abstracts were outside the scope of ICTL's traditional focus. For the first time in 34 years, the organizing committee received a total of 398 proposals. Based on two anonymous reviews conducted by the academic committee composed of 56 Turkish language professors from around the world, 214 proposals for papers and three panels (workshops) were accepted. Because there were many abstract submissions from less related disciplines, the rejection rate this time was quite high: 46.5% of the 398 abstracts were not accepted by the referees. Just before the conference, the organizers received 69 cancellations, requiring rescheduling of the program. For the first time in ICTL history, the papers presented in Turkish and English were equal in number. In total, 155 paper presentations and six plenary lectures were presented to an audience of 205 participants. The plenary speakers and the titles of their talks are listed below:

Stéphane De Tapia (UMR 7043 CNRS, Strasbourg University, France): *Fran-sa'da Türk dili ve edebiyatının öğretimi. 2014 yılındaki durum, sorunsallık ve perspektifler.*

Prof. Dr. Ayhan Aksu-Koç (Boğaziçi University, Istanbul, Turkey): *Socioeconomic status and language development: Evidence from adult inputs and child outputs.*

Prof. Éva Á. Csató Johanson (Department of Linguistics and Philology, Uppsala University, Sweden): *Turkic relatives revisited.*

Prof. Dr. Aydın Yücesan Durgunoğlu (University of Minnesota Duluth, USA), *Integrating cognitive and sociocultural aspects of reading in Turkish.*

Prof. Dr. Eser Erguvanlı Taylan (Boğaziçi University, Istanbul, Turkey): *A modality map of Turkish.*

Prof. Dr. Tooru Hayasi (University of Tokyo, Japan): *Eynu, a Modern Uyghur-based secret language, and its implication in Turkic linguistics.*

Three panels were presented at the 17th ICTL:

1. Irina Nevskaya & Lars Johanson: *Optative in Turkic* (5 Papers)
2. Beste Kamali: *Interrogatives in varieties of Turkic* (9 papers)
3. Christoph Schroeder & Jochen Rehbein & Yazgül Şimşek: *Turkish-Kurdish language contact.* (6 papers)

ICTL made the University of Rouen the capital of Turkish language studies during the three days of the conference. On the sidelines of the conference, two excursions, one to the coast of Normandy (Caen Memorial and the Landing Beaches) and the other to Mont Saint Michel, publicized and promoted the cultural heritage of Normandy.

The 17th ICTL organizers are grateful for the advice, assistance, and cooperation of everyone who contributed to the conference. They would especially like to thank Professor Éva Á. Csató Johanson (Uppsala University, Uppsala, Sweden) and Associate Professor Dr. Çiğdem Sağın Şimşek (METU, Ankara, Turkey) for their guidance and assistance on all matters great and small. They also wish to thank the members of the Academic Committee for their reviews of all the abstracts submitted. The review process is an integral part of ICTL, and the organizers are grateful to the members of the academic committee.