

UNIVERSITY OF SZEGED  
DEPARTMENT OF ALTAIC STUDIES

Yakut derivational morphology

*An historical approach*

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Deverbal nominals

DISSERTATION SUMMARY

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2007

## **1 Introduction**

In the classical period of Turcology a number of serious monographs were published on the morphological system of the Turkic languages; sometimes as part of broader analysis (e.g. together with phonology) of this language group. Generally speaking, these works had two determinative aims:

First, mainly comparative and historical description of Turkic in order to find the common roots, and to outline the ways how contemporary languages were developed from their ancestors.

Second, comparative analysis of the morphological system of Turkic, Mongolic and Tungusic in order to say something for or against the genetic question of the so called Altaic language family.

In the latest decades, however, the followings became evident: Turcology, in its present state, cannot answer numerous questions that are needed for reconstructing the morphological system of Proto-Turkic. This fact implies that nothing serious can be stated on the question of Altaic morphology, if there is such a term at all, until the morphological system of Proto-Turkic, Proto-Mongolic and Proto-Tungusic are worked out in a sufficient degree. From another point of view: Turkic morphology also has “vote” in the genetic question of the Altaic languages.

There are main pillars can be used in the reconstruction of Proto-Turkic morphology. One of them is the Old and Middle Turkic morphological systems. The other is the morphological system of the modern Turkic languages. In an ideal case every subgroup of the Turkic languages, i.e. Chuvash, Kipchak, Oghuz, Turki, South Siberian, Khalaj and Yakut, plus the historical languages, should possess a good monograph on this subject. Until it does become a reality, reconstruction of Proto-Turkic cannot be fulfilled.

The present situation is that we possess only some useful handbooks on Turkic comparative-historical morphology. Most of the others focus on the description of the synchronic system with minimal diachronic comments.

Thus, the aim of my dissertation was to work out a small part of the Yakut morphological system, namely the system of deverbal nominal suffixes as thorough as possible. Since the Yakut language, preserving several old features of Turkic, has also important role in the reconstruction of every segment of Proto-Turkic, I hope my modest step in Yakut historical

morphology helps Turcology to be able to reconstruct Proto-Turkic in the future more precisely.

## **2 Methodology**

Although derivational morphology is a relatively delimited and defined part of the grammar, and the logic of distinction of derivational morphology from other things might be clear, there are some points where researcher can entertain doubts. Certain suffixes can move easily from the domain of inflection to derivation. For instance, participle of a verbal lexeme being an integral part of its paradigm traditionally considered as inflectional, however such forms have adjectival character. It is the same to converbs (sometimes referred to as adverbial participle) having adverbial character, too.

According to the generally accepted definitions that (1) derivation, in broadest sense, refers to any process which results in the creation of a new word, and (2) the lexicon lists derivative lexemes, but not inflected words, there may be a very simple method to determine the corpus of analysis on derivational morphology: the corpus includes every element given in the dictionary as separate entry. In other words: morphology based on the lexicon. Thus I inserted all the entry words of Pekarskij's dictionary to my database that formed the full corpus of analysis.

The total number of the analysed lexemes (of the type base verb + deverbal nominal derivational element) is approximately 6300. The classification and description of the derivational elements was made on the basis of this corpus. Presentation of the results in the dissertation follows a strict order in which the sequences are:

- (1) the standard (and non-standard/dialectal) forms of the suffix, morphophonological peculiarities;
- (2) the function(s) of the suffix;
- (3) Dolgan parallels;
- (4) etymological notes, parallels from other languages;
- (5) other comments;
- (6) example derivatives; with short etymological notes if parallels exist.

According to the analysed lexemes, which were divided into subgroups according to their derivation and etymology, a statistics was made, that

represents the frequency of the derivational elements appearing in Pekarskij's dictionary. This result can serve a solid base, together with other facts, for the determination of the productivity of suffixes. In present work this property of suffixes is provided only in a twofold system being *productive* or *unproductive*. These statements were drawn from the statistics, from the comparison of Pekarskij's dictionary with the modern ones, and from other works on Yakut morphology.

### **3 Overview of the dissertation**

Chapter 1 is an introduction. Here some of the most important questions of Turcology are cited with the emphasis of certain general and morphology related problems that have not been solved so far. In addition, I try to outline a possible way on which we should go forward to find solutions for these issues; and I try to fit my dissertation into this framework as a possible link.

Chapter 2 is on derivational morphology. It is neither for presenting the theoretical ideas behind derivational morphology, nor for giving a summary of the vast literature of this subject. Instead, here I define the basic principles that have determined the frame and boundaries of the dissertation.

Chapter 3 is a brief survey of Yakutology focusing on morphological studies.

In chapter 4 technical details are mentioned: the system of transcription, notation of the allophones, formulation of the morphophonological variants, and the like.

Chapter 5 is about the system of analysis.

Chapter 6 is the longest chapter of the dissertation where the independent suffixes are analysed in details. They are divided into subgroups according to their etymology, and the entries are in alphabetical order in every subgroup.

Chapter 7, being the most important part of the dissertation, is on the common features and tendencies of the deverbal nominal suffixes. Several findings and results of my research are also summed up here.

These numbered chapters are followed by (1) the statistics of the frequency of the analysed suffixes, (2) the abbreviations, (3) the references, and (4) the index of the cited Yakut words.

#### 4 Findings and results

The most important result of the dissertation is that, on the basis of the huge database, more than hundred deverbal nominal derivational elements were clearly identified and described in a systematic way. The historical-comparative description of these suffixes are more detailed in most cases than the former analyses, and are ready to apply in the reconstruction of the Proto-Turkic morphological system.

The precise analysis of the suffixes gave the possibility for drawing conclusions on the common features and tendencies of the Yakut deverbal nominal suffixes, too. These generalities were divided into ten different categories. Although some of these problems have been partly discussed in the former literature, several new results could be gained due to the huge corpus and the applied method and viewpoint. These results are the followings:

##### *4.1 The verb-final segment °Vy- in derivation*

The verb-final segment in Yakut is a strongly restricted position: a verb can only end in °C-, °Ā- or °XA-. Verbs originally ending in short vowel get an anorganic element /y/ (or become diphthongic/long). From a pure phonological point of view, verbs ending in °Vy- belong in the class of consonant-final verbs, however, they can behave completely different in inflexion and derivation. Under certain conditions the sound /y/ is dropped and the verb behaves as an open syllabled one. Basically there are three possibilities: (1) the segment °Vy- remains intact, (2) the sound /y/ is dropped, or (3) the full segment °Xy- is dropped. Examples belonging in (1) and (2) represent the “normal” way: certain rules (determined by e.g. the structure of the stem and the suffix) predict whether /y/ has to be dropped or not. Only two derivational elements show “irregularity” by the replacement of the entire segment °Xy-, those are the suffixes of Mongolic origin -KAy and -KAN. According to the rule set of -KAy: a) °C- → °CkAy, b) °Ā-/°XA-/°Ay- → °AgAy, c) °rXy- → °rkAy, and d) °lXy- → °lkAy, it is clearly visible that it has preserved the morphophonological rules of its Mongolic counterpart. Although -gAn in Mongolic does not show the same morphophonological rules as -KAy, the Yakut suffix -KAN behaves the same, and as an extra rule

replaces the stem-final  $^{\circ}XY-$  not only of verbs ending in  $^{\circ}lXY-$  or  $^{\circ}rXY-$ , but  $^{\circ}sXY-$ .

On the other hand, it seems to be highly plausible that the derivatives in question were formed in an older stratum of the Yakut language when the stem-final segments were  $^{*o}lV-$ ,  $^{*o}rV-$  or  $^{*o}sV-$ , thus e.g. *buḵurxay* ‘curly; lock (of hair)’ and *ḵulusxan* ‘zealous, pushy’ are derivatives of OY  $^{*}buḵurV-$  and  $^{*}ḵulusV-$  from which the modern verbs *buḵuruy-* ‘to grow curly-headed, to curl’ and *ḵulusuy-* ‘to strive’ could regularly develop. This fact indicates that the relation between the words belonging to this category cannot be symbolized by the sign  $\leftarrow$ , but  $\sim$ .

#### 4.2 Allomorphy in derivation

Generally speaking, the domain of inflection and derivation in Yakut share the same morphophonological features. For instance, the distribution of vowels in the allomorphic variants of suffixes can be described with exact rules, and these rules cover every possible element. There are not more than three types of suffixal segments from the point of view of vocalism: (1) the high variant *X*, (2) the low variant *A*, and (3) the diphthongic one *XA*. In case of the distribution of the consonantal allophones in suffixes, however, noticeable differences can be seen.

On the one hand, inflexional suffixes etymologically showing the suffix-initial sound /g/, /k/ or sometimes /ŋ/ now fit to the rule set symbolised by a capital *K*, see e.g. the dative-locative case marker  $+KA$ , or the 2pl. possessive suffix  $+KXt$ . On the other hand, the derivational elements  $-KAy$  and  $-KAN$  also tried to fit to a rule set, but significant differences can be observed. The two rule sets being:

	high V	low V	l y r	voiceless	nasal	x
<i>K</i> in inflexion	g	ḡ	g	k	ŋ	x
<i>K</i> in $-KAy$ and $-KAN$	ø	k, x, g, ḡ	k, x	k, x	ø	ø

*Morphophonological rule sets of K*

As can be seen from the table, rule set of *K* in the domain of inflexion is regular, and can be fit to the general system of Yakut morphophonology. While virtually every noun has inflected dative-locative form in +*KA*, (and this is of course true for almost every inflectional suffix) the morphophonological changes have to be predictable by strict rules. In case of derivation is no need for such a strict pattern: the “irregularly” derived forms are in the individual’s mental lexicon and not determined by active rules. Nonetheless these “irregular” derivatives can be interpreted by diachronic analysis. Although the palatal-velar opposition between *k* : *x* and *g* : *ǰ* ceased to be valid in modern Yakut, derivatives in -*KAy* and -*KAn* treasured the original system: after stem-final /*l y r*/ 100%, in intervocalic position 85% of the examples fit to the palatal-velar harmony. In addition, as -*KAy* is of Mongolic origin, the preservation of this phenomenon is partially due to the Mongolic side where palatal-velar harmony of *k* : *x*, *g* : *ǰ* is strong.

The rather archaic features of -*KAy* and -*KAn* presented here and in section 4.1 implies that these derivational elements belong to an older (or maybe the oldest) stratum of the Mongolic loan suffixes.

#### 4.3 Homomorphy in derivation

In the life of a language diachronic processes may result homonyms from different pre-forms. To complicate the matter even further, these mostly phonological similarities may associate with semantic ones. In such extreme cases the separation of derivatives into different classes according to their origin is almost impossible. In Yakut there has been a tendency due to the strong Mongolic influence that led to a relatively great number of homonyms. See e.g. -(*A*)*k* (~ Mongolic -*g*) : -(*V*)*k* (~ Turkic -(*O*)*k*), -(*V*)*ŋ* (~ Mongolic -*ŋ*) : -(*X*)*ŋ* (~ Turkic -(*X*)*ŋ*), or -(*X*)*r* (~ Mongolic -*r*) : -(*A*)*r*/-(*ǰ*)*r* (~ Turkic -*Ar*, -*Ir*, -*Ur*, -*yUr* and -*r*).

In the separation of homonym derivatives into classes, a simple and practical method, being aware of its questionability, has been used: if the base is Turkic/Mongolic, the derivational suffix on it is also handled as of Turkic/Mongolic origin, respectively. In case of inner Yakut words, or words of uncertain origin such method could not be applied.

#### *4.4 The so called linking vowel*

Being a standard behaviour in Turkic, certain suffixes join the consonant-final stem via a linking sound. These linking sounds in Yakut can be divided into the following two classes: the low *A* type, and the high *X* type. However, it is worth noting that only a very small group of words provides information on the question of the linking sound, because most of the verbs end in °*Ä*-, °*XA*- or °*Vy*-.

The low type *A* is in minority and mostly characteristic to the suffixes of Mongolic origin. The only suffix of Turkic origin belonging to the low type is the aorist in *-(A)r*. The *X* type being more typical in Yakut shows a more or less equal distribution between the suffixes of Turkic and Mongolic origin.

Besides the clear *A* and *X* type, a great number of derivational elements allow to join the base via both types. The twofold system of the linking sound is a characteristic feature of certain suffixes of Mongolic origin. Because suffixes in Mongolic, with some exceptions, have practically no linking vowel, speakers of Yakut could not adopt the Mongolic system directly, but had to transform it to the morphophonological system of Yakut. Because indigenous suffixes, belonging to both types, and their rule sets do not give any strict rule for the application of foreign elements, in the process of borrowing both types were allowed and applied. In extreme cases both alternatives can be registered in the same meaning.

#### *4.5 Dominancy in derivation*

The phenomenon when the stem-final vowel is replaced by the initial vowel of the bounding element is referred to as dominancy in the Turcological literature. Although it is not a characteristic feature of Turkic in general, the traces of this phenomenon can be observed from the Old Turkic period up to the contemporary languages.

A great number of Yakut derivational elements also represent this phenomenon; on the basis of a simple synchronic analysis, the dominancy of these elements can be clearly observed.

Although the synchronic comparison of the base verbs and their derivatives show the phenomenon of dominancy, a detailed diachronic analysis can point out that these derivatives are only virtually dominant. The contemporary appearance of this behaviour is the result of a special

diachronic process, that is the weakening, or contraction of certain sound groups. For instance, the modern Yakut word *iädän* ‘fuss, haste; confusion’ came into being from the Old Yakut form *\*igädägän*, which corresponds to Literary Mongol *egedegen* ‘sour, coagulated’ ← *egede-* ‘to turn sour, curdle, coagulate’ + *-gAn*, and the Yakut verb *iädäy-* ‘to fuss; to be disturbed’ is a modern counterpart of the Literary Mongol verb *egede-*. On the other hand, there is no direct link between the modern Yakut words *iädän* and *iädäy-*; the history of the two words has diverged. In addition, it is also plausible that they were borrowed from Mongolic independently, and thus *iädän* has to be deleted from the list of inner derivatives of Yakut. The relationship between the cited data can be summed up as follows:

Literary Mongol	<i>egedegen</i>	←	<i>egede-</i>	<i>-gAn</i>
	~		~	~
Old Yakut	<i>*igädägän</i>	←	<i>*igädä-</i>	<i>*-gAn</i>
Modern Yakut	<i>iädän</i>	←	<i>iädäy-</i>	<i>-Än</i>

*Relationship between the corresponding data*

Of the analysed suffixes ten show the same sound change: the original suffix-initial segment *-gV<sup>o</sup>* has weakened to a long vowel. It is worth noting that the influence of neighbouring Mongolic languages, especially Buryat, had a key role in developing or strengthening the system of dominance in modern Yakut. The strong contraction and weakening in modern Buryat have resulted similar phenomena.

The possible sound segments from which the contracted and dominant forms came into being are the followings:

original form	contracted form
°A-gA	°Ā
°A-gX	°X̄
°XA-gA	°XA/Ā
°XA-gX	°XA/X̄
°X-gA	°XA/X̄
°X-gX	°X̄
°A-g	°X̄
°XA-g	°X̄
°X-yX	°X̄
°XA-yX	°X̄
°X-yX	°X̄

*The development of dominancy in Yakut*

*4.6 Sound changes in derivational elements*

The most frequent sound change in derivational elements is the weakening of /g/. Nine suffixes of Turkic and eight of Mongolic origin represent this sound change. It mostly takes place as  $-V̄ < -gV^\circ$ , but after stem-final /l r s/ the suffix-initial /g/ may remain intact. Sometimes the process of weakening stops on half-way resulting a diphthong.

In spite of the strong tendency of the contraction of  $-gV^\circ$  or  $-Vg$  to long vowel, there are suffixes showing the preservation of /g/. The weakening of VGV in suffixes of Mongolic origin only took place if the process of sound change had been started in Mongolic being an "inspiration" for Yakut.

*4.7 The origin of the derivational elements*

It goes without saying that Mongolic influence is very strong in Yakut. According to the analysis made by certain scholars, approximately 30% of the Yakut vocabulary is of Mongolic origin.

The distribution of the deverbal nominal elements according to their origin being: 26 of Turkic, 43 of Mongolic, 2 of uncertain and 25 of unknown origin. This high rate of suffixes of Mongolic origin shows a greater influence than the lexical analysis, and than that of can be drawn from the literature. It

is also worth noting that the second and forth most productive deverbal nominal derivational suffixes are of Mongolic origin.

#### 4.8 Common features of suffixes of Turkic and Mongolic origin

Since Mongolic influence has reached Yakut in the greatest degree via Buryat, here a Yakut–Buryat comparison of the derivational elements is given.

The most common feature of Yakut and Buryat is the propensity to the contraction of suffix-initial  $-gV^\circ$  to  $-\bar{V}$ . Another similarity regarding the sound group  $-gV$  is that contraction does not take place after /l/ and /r/. If the original Mongolic /g/ has not weakened in Buryat, it is also preserved in Yakut.

On the other hand, Yakut differs from Buryat in certain points. Contrary to the Buryat way of development, the original Mongolic segment  $A-gU$  is in half-way to the long vowel.

In the following table, the possible ways of development of the sound segment  $*VgV$ , and the relative chronological strata in which the corresponding suffixes might be borrowed are summed up:

	stratum 1	stratum 2	stratum 3		
corresponding sounds	OT $Vg(V) \sim Y \bar{V}$	LM $VgV \sim Y VbV$	LM $VgV \sim Y \bar{V}$	LM $AgV \sim Y XA$	LM $Vg(V) \sim Y VgV, Vk$
landing forms	$*VgV, *V\gamma V$	$*V\beta V$	$*V\gamma V, *V'V$	$*A\gamma V, *A'V$	$*VgV, *Vk, *V_G$
example suffixes	OT $-gAk \sim Y -\bar{A}k$ OT $-(X)g \sim Y -\bar{X}$	LM $-gUl \sim Y -(V)bXI$	LM $-gA \sim Y -\bar{A}$ LM $-gUr \sim Y -\bar{X}r$	LM $-gU \sim Y -XA$ LM $-mtAgU \sim Y -XmtXA$	LM $-gAr, -gir \sim Y -(V)gVr$ LM $-g \sim Y -(A)k$

*Strata of Yakut according to the development of /g/ in suffixes*

#### 4.9 Deverbalization of denominal nominals

There are only three denominal nominal derivational elements in the analysed corpus showing the phenomenon of deverbalization.

Since deverbalization is not a frequent change in derivational morphology, I presume here that these elements are not directly related to their denominal counterpart, but contracted forms of compound suffixes (deverbal nominal + denominal nominal), e.g. the Yakut suffix *-kX* is not a direct counterpart of Mongolic *+ki*, but a contracted form of *\*-X+kX*, where *\*-X* is invisible in most of the cases; only the dominant allomorph *-XkX* gives some evidence for the original form.

#### *4.10 Pseudo derivational suffixes*

Due to the wrong analysis of certain Yakut data, pseudo derivational elements also can be found in the former literature of Yakutology. Here I present the most important and most frequently cited ones with arguments that can refute the existence of them.

Accordingly, there is no any clear example which could postulate the deverbal variants of *+LXk* and *+XyA*.