

One-sound morphemic elements in the base of the derivational suffixes in Orkhon Inscriptions

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Abstract

In this paper, the origin of Turkic derivational suffixes is discussed. It was noted that there are various approaches to this case, one of them being the theory of grammaticalization which suggests that Turkic derivational suffixes come from content words, while the other being based on the one-sound morphemic elements that are common to some derivational suffixes. The main one-sound formants in the language of Orkhon Inscriptions that we investigate are the elements *-l*, *-g*, and *-m*. The element *-l* occurs both in denominal and deverbal words, whereas the formants *-g* and *-m* are registered mostly in deverbal nominal words.

Key words: Old Turkic, Orkhon Inscriptions, word-formation, compounding, morphemic elements

1. Introduction

There is a common idea in linguistic studies that suffixes were formed by the grammaticalization of the constituents of compound words, i.e. suffixes come from words. For many of the linguists, “today’s morphology is yesterday’s syntax” as Givón asserted (Hopper 1996: 220). Some of them even assume that there is not a clear boundary between compounding and derivation (Ralli 2010: 59). This insight has been very popular for at least 200 years (Hüning 2014: 580). It is especially popular in turkological studies.

2. From compounding to derivation: a survey of the myth of grammaticalization

Before analyzing the role of grammaticalization in making derivational suffixes in the language of Orkhon Inscriptions, we want to look through the main opinion and theories on the linguistics phenomenon of grammaticalization in the linguistic literature.

The use of the term ‘grammaticalization’ begins with the French linguist Meillet who characterized grammaticalization as the “attribution of a grammatical

character to a formerly autonomous word” (Hopper, 1996, p. 218). In traditional linguistic studies, grammaticalization is a process where words with independent lexical meaning turn into suffixes. However, there are a lot of new opinions on this matter. Some of them, focusing on the non-grammatical functions of lexical or derivational suffixes, treat the phenomenon of grammaticalization as a process of making only grammatical, i.e. inflectional suffixes from words, while the other strongly insists that the borders of grammaticalization should be extended, and the formation of derivational suffixes should also be included to the results of this phenomenon.

It has to be noted that it is not the isolated words that turn into affixes, but the constituents of compound words (Hüning, 2014, p. 585). It means that there should be a corresponding compound word to the derivative one to suggest that the derivational suffix was derived from the particular part of the compound.

According to Eckardt, “...grammaticalization is a change where a word with independent content, preferably of one of the main lexical categories A, V or N, develops a new use with a comparatively more dependent, more abstract content, changed word class, typically of a functional nature, e.g. auxiliary, modal, functional word or even affix” (Eckardt, p. 1). It is clear that R.Eckardt do not exclude the formation of derivational suffixes here.

A well-known opinion of Kuryłowicz suggests that “grammaticalization consists in the increase of the range of a morpheme from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g. from a derivative formant to an inflectional one” (Kuryłowicz, 1965, p. 69). The main focus of this thought is a change from derivational to inflectional suffixes.

The linguists who exclude derivational suffixes from grammaticalization argue that derivational suffixes are not grammatical, but lexical morphemes, because they have special lexical meanings, and they sometimes call this process lexicalization or just avoid using both notions in respect to word formation (Hüning, 2014, p. 581, p. 586). However, it should be noted that derivational suffixes do not have a lexical meaning, they merely participate in the formation of a new lexical meaning in the word, i.e. they add a new lexical meaning to a root or a stem. That’s why they cannot be accepted as lexical morphemes. They are not independent, but bound morphemes.

Nevertheless, other scholars accept derivational suffixes as a result of grammaticalization. “Grammaticalization is often characterized as a transition (or cline) that includes the change from “syntax/word” to “morphology/affix” as one segment” (Haspelmath, 2011, p. 343), e.g. Stevens illustrates the clines from lexical item to inflectional affix as the following:

Root → affixoid → derivational affix → inflectional affix (Hüning, 2014, p. 583).

The thoughts of the linguists on the reasons of grammaticalization also differ. While some of them acknowledge generalization or bleaching as a driving force in grammaticalization, for the other scholars metaphor or metonymy is the main reason of this phenomenon (Eckardt, p. 14). The author of the term described the two processes of grammaticalization; analogy and “the passage of an autonomous word to the role of grammatical element” (Hopper, 1996, p. 218). According to Bybee (2003), one striking feature of grammaticization is a dramatic frequency increase, it is a primary contributor to this process, and habituation and repetition are very important for grammaticization.

3. Another approach to the origin of the derivative suffixes: one-sound morphemic elements

As we mentioned above, most linguists agreed that grammaticalization is not a process which occurs in isolated words. It is rather a process of making suffixes from the constituents of compound words. This view could be a key to determine the possibility of grammaticalization process in the language of Orkhon Inscriptions.

The investigation of word-formation methods in written monuments and the comparison of several word-formation processes in Orkhon Turkic show that while derivation was the most productive way of word-formation, the number of genuine compound words in these monuments was far less than the ones in the modern Turkic languages. Therefore, it cannot be proved that the large number of suffixes originated from few compound words.

On the contrary, there are some suffixes similar both in form and in function. They have the same one-sound morphemic elements that correspond to each other. So, it can be assumed that these suffixes originated from these small morphemic elements.

The other fact that reduces the possibility of grammaticalization in the derivational suffixes of Turkic languages is the lack of affixoids or enclitics. Affixoid is a “compound constituent with an affix-like behavior which corresponds to an independent word with aspect to its form, but not with respect to its meaning” (Hüning 2014: 587-589). They are categorically marginal affixes or categorically marginal lexemes that have the properties of both affixes and lexemes and had also been called pseudo-affixes, semi-affixes, semi-words, and confixes (Ralli, 2010, p. 59-60). “The rise of affixoid is a typical case of grammaticalization, content words becoming grammatical morphemes. ...semantic change has already taken place, but there is no formal change yet...” (Booij, 2005, p. 122). There are very few morphemes that can be accepted as affixoids in Turkic languages, and most of them belong to grammatical categories, not to word formation. However, “...in the literature, the notion of affixoid is central to the discussion of grammaticalization and word formation” (Hüning, 2014, p. 587).

One of the main principles of grammaticalization is determined as layering: "...the older layers are not necessarily discarded but may remain to coexist with and interact with the newer layer. Grammaticalization does not proceed by eliminating old forms and substituting new ones, but by 'crowding' the field with subtly differentiated forms all having approximately the same meaning... the grammaticalized form and its lexical counterpart may coexist" (Hopper, 1996, p. 230). As we analyze the suffixes that are accepted as the results of grammaticalization in Turkic languages, it can be seen that they do not have corresponding older forms, the compound words that they came from. For example, there is the suffix *-l* which makes verbs from nominals, such as *tüzäl-* 'to be fixed' from *tüz* 'correct'. Even though some turkologists assume that this suffix comes from the auxiliary verb *ol-* 'to be', the forms *tüz ol-* 'to be correct' and *tüzäl-* 'to be fixed' have different meanings. Or according to some linguists, there is a connection between the denominal verb making suffix *-la/-lä* and the auxiliary verb *elä-* 'to do'. But the verbs formed with the suffix *-la* such as *duzla-* 'to add salt' does not have the same meaning with the construction with *elä-* like *duz elä*. The last one may have several meanings: 'to add salt' or 'to turn something into salt'. As it can be seen the second meaning does not correspond to the derivative verb. Besides, all nouns can be used with the verb *elä-*, whereas not all of them can take the suffix *-la*. Eventually, the suffix *-daš* is considered to be formed with the locative suffix *-da* and the noun *eš* 'mate'. However, while there are such words as *yoldaš* 'fellow', *arqadaš* 'friend', *adaš* 'namesake' in Turkic languages, there is not any constructions like *yolda eš*, *arqada eš* or *adda eš*. It confirms that even though the change from independent words or the constituents of compound words into derivational suffixes is possible theoretically, it cannot be proved practically.

The doubts for grammaticalization theory were expressed in many different ways, for instance, "I do not take an explicit position on whether they are generated by rule or are analogically created according to certain basic schemas" (Ralli, 2010, p. 60).

Nevertheless, we do not intend to deny the formation of inflectional suffixes from auxiliary words which are formed from words respectively. It is a possible way of the improvement of grammatical system of Turkic languages. B.Heine and the other linguists observed that the same range of content words give rise to the same kinds of functional words in unrelated languages all over the world (Eckardt, 2002, p. 56). This leads us to think that the grammaticalization processes in Turkic languages have a lot of common features with the same processes in the other languages of the world. However, it would not be proper to link all the suffixes to content words: "...not every grammatical marker can be traced back to a content word; very often there is not sufficient historical data to determine the source of a particular morpheme" (Diessel, p. 1).

To prove our opinion, we are giving examples of these suffixes below.

3.1. The element -l and its derivatives

There are some nominal and verbal suffixes which have the element *-l* and which contain the meaning 'to have something, to own something' or 'to gain something'. These include denominal adjective making suffixes *-liḡ*, denominal noun making suffixes *-liq*, denominal verb making suffix *-la*. It seems that the plural marker *-lar* and comitative suffix *-la* has also the same origin with these suffixes.

The suffix *-liḡ/-liq/-luy/-lüg* makes adjectives from nouns:

Ärklig 'strong, powerful, independent' (*ärk* 'strength, power, will' + *-lig*)

(1) *Täblig* 'sly, cunning' (*täb* 'trickery, deception' + *-lig*):

...tabyač bodun *täbligin* kürlig üçün, armaqčisın üçün (Kul Tigin East 6)

...Tabghach people cunning-COM sly for liar-COM for

'...because Tabghach people were cunning, sly and liars'

Kürlig 'sly, cunning' (*kür* 'trickery, deception' + *-lig*):

(2) ...tabyač bodun *täbligin kürlig* üçün, armaqčisın üçün (Kul Tigin East 6)

...Tabghach people cunning-COM sly for liar-COM for

'...because Tabghach people were cunning, sly and liars'

Külig 'renowned, famous' (*kü-* 'fame' + *-lig*):

(3) ...*külig* bägläri, bodunı... (Bilge Kaghan East 1)

...famous beg-PL-POSS.3.SG people-POSS.3.SG...

'...their famous begs and people...'

Künlig 'a person with female slaves' (*kün* 'female slave' + *-lig*):

(4) Ol ödkä qul qullıy, kün *künlig* bolmiš erti (Kul Tigin East 21)

That time-DAT slave with_slaves female_slave with_female_slaves be-PST AUX-PST

'At that time slaves got slaves, female slaves got female slaves'

Qullıy 'a person with male slaves' (*qul* 'male slave' + *-liḡ*):

(5) Ol ödkä qul *qullıy*, kün *künlig* bolmiš erti (Kul Tigin East 21)

That time-DAT slave with_slaves female_slave with_female_slaves be-PST AUX-PST

'At that time slaves got slaves, female slaves got female slaves'

The suffix *-liḡ* is related to the denominal verb making suffix *-la*. It makes adjectives which depicts the results of verbs with the suffix *-la*. For example, the adjective *qayanliḡ* means the property which was formed in the result of the verb *qayanla-*. It may be assumed that the suffix *-liḡ* is based on the morphemes *-la* (denominal verb making suffix with the meaning 'to add') and *-iḡ* (deverbal

nominal making suffix with the meaning 'result'); the first formant was also formed with two elements *-l* and *-a* where *-l* adds the meaning existence or comitativeness.

There is also the suffix *-li/-li/-lu/-lü* in Orkhon Inscription which was used in order to link words. It was registered in the following examples:

(6)...*inili-eçili* kişür-tüg-in üçün *bägli*-bodunlıy yoñşur-tuq-in üçün... (Kul Tigin East 6)

...younger_brother-elder_brother make_enemy-PTCP-GEN for beg-people turn_against-PTCP-GEN for...

'...because they make younger brother and elder brothers enemies, and turned begs and people against each other...'

This example proves that the suffixes *-li* and *-liy* were used at the same time to fulfill the same function, and confirms their relationship.

The suffix *-li/-li/-lu/-lü* continued to be used in the modern Turkic languages in the same function: *aşayılı yuqarılı* 'down and high', *küçükli büyüklü* 'young and elder', *geceli gündüzlü* 'night and day', *inişli yoquşlu* 'ups and downs', *çoluqlu çocuqlu* 'with children' (Turkish) (Kononov, 1956, p. 141-142); *älli-ayaglı* 'with hands and legs' (Azerbaijan), *yoqinli-inçeli* 'thick and thin' (Turkmen), *ertelü-keçtü*, *erteli-keç*, *irlë-qaşlä* 'morning and evening' (Kirgiz) (Sevortyan, 1966, p. 75-76); *enelü balalu* 'mother and child' (Altai) (Şerbak, 1977, p. 112). Interestingly, Kononov who distinguished the suffix *-li* from the suffix *-liy* in the language of Turkic Runic monuments gave the words above among the suffix *-li* in modern Turkish.

The function of this suffix is between the suffix *-liy* given above and the comitative suffix *-la*.

The suffix *-liq/-lik/-luq/-lük* occurred only in few instances in the language of the Inscriptions.

It also made adjectives from nouns with the meaning to be appointed for something or somebody:

Bäglük 'appointed to be beg' (*bäg* 'beg' + *-lig*):

(7)Tabyaç bodun-qa *bäglük* urı oylın qul bol-tı, silik qız oyl-in küñ bol-tı (Kul Tigin East 7)

Tabghach people-DAT deserved_to_be_beg male child-POSS.3.SG slave be-PST pure female child-POSS.3.SG female_slave be-PST

'Your sons who deserved to be beg became slaves, your pure daughters became female slaves'

Özlük 'thoroughbred' (öz 'self, main part' + -lük):

(8)...sünüs-dükdä Küli çor özlük-i yägrän at bin-ip... (Kuli Chor 15)

...fight-CVB Kuli Chor breed-POSS.3.SG good horse mount-CVB...

'Kuli Chor mounted on the thoroughbred horse when he fought...'

It was also used together with the suffix -*yu* which will be explained below:

Toplayuluq 'gathering' (*topla-* 'to gather' + -*yu* + -*luq*)

(9)Yuyqa qalın bol-sar, *topla-yu-luq* alp er-mis, yinçgä yoyun bol-sar, üz-gü-lük alp er-mis (Tonukuk 13-14)

Thin thick be-COND gather-INF brave AUX-PST slim stout be-CVB pull_out-INF brave AUX-PST

'It would be a bravery to gather if a thin thing became a thick one, it would be a bravery to pull out if a slim thing became a stout one'

Üzgülik 'picking, pulling off' (üz- 'to pick, to pull off' + -*gü* + -*lük*):

(10)Yuyqa qalın bol-sar, *topla-yu-luq* alp er-mis, yinçgä yoyun bol-sar, *üz-gü-lük* alp er-mis (Tonukuk 13-14)

Thin thick be-COND gather-INF brave AUX-PST slim stout be-CVB pull_out-INF brave AUX-PST

'It would be a bravery to gather if a thin thing became thick, it would be a bravery to pull out if a slim thing became stout'

One of the meanings that the suffix -*liq* made is to depict abstract procedure and situation (Šerbak 1977: 104). This was the basic meaning that the suffix -*yuluq* makes.

The formant -*li* was also used as the second part of this suffix:

(11)Yuyqa eriklig *topla-yu-lu* uçuz er-miş, yinçgä eriklig *üz-gü-lü* uçuz (Tonukuk 13)

Thin being gather-INF easy AUX-PST slim being pull_out-INF easy

'It is easy to gather if it is thin, it is easy to pull out if it is slim'

Some turkologists claimed that the suffix -*liq* originated from a content word. Baskakov explained this word as *liq* 'many, full' (Sravnitel'no, 1988, p. 139), and Dmitriyev (1948, p. 68) agreed. Nevertheless, some rejections may be given against this insight:

1. There is not any evidence of the use of the word *liq* either in Old Turkic written monuments or in the modern Turkic languages.

2. Native Turkic words do not begin with the consonant *l*.

3. It is hard to explain the meaning that the suffix makes with the meaning that the word depicts.

Deny linked this suffix to the word *ilik* from the verb *il-* 'to add', while Bang thought it to be *ilen* 'together' (Srvnitel'no, 1988, p. 140). Neither of the words was registered in Orkhon Inscriptions.

These are not the only opinions on the origin of the suffix *-liq*. According to Kotwicz, this suffix comes from *-l* which also served as a plural marker in Tungusic languages. Tumaševa also assumed that *-liq* is based on *-l*, but the function of *-q* is unclear. Serebrennikov suggested that both of the elements *-l* and *-q* are plural markers (Srvnitel'no, 1988, p. 140). Nevertheless, it is not obvious why two plural markers came together. The linguists who linked this suffix to the formant *-l* assumed that the original meaning of this suffix was plurality, and the meaning abstractness formed later (Srvnitel'no, 1988, p. 141-142).

Several thoughts were expressed on the relationship between the suffixes *-liq* and *-liγ*. According to some linguists, while the original meaning of both suffixes was possession, the formant *-liq* later gained the meaning of abstract generality. That's why sometimes it is very hard to distinguish these suffixes formally (Šerbak, 1977, p. 106 and 111). The main distinction of these suffixes is the last sounds of them; the suffix making nouns ends in *q, k*, whereas the suffix making adjectives ends in *γ, g*. It leads us to think that these suffixes are related genetically, they have the same element *-l*. One of them combines this formant with *-iγ/-ig*, while the other gets the morpheme *-iq/-ik*. There is not a clear distinction between the suffixes *-iq/-ik* and *-iγ/-ig*, and it may be considered as the main cause of the non-distinction between the morphemes *-liq* and *-liγ*.

The denominal verb making suffix *-la/-lä* is in a close relationship with the suffixes given above:

Abla- 'to hunt' (*ab* 'hunt' + *-la*):

(12)...*ab abla-sar rmlä täg er-ti* (Kuli Chor 9)
...hunt hunt-COND ... like AUX-PST
'...if he hunted it was like'

Illä- 'to bring a state' (*il* 'state' + *-lä*):

(13)*Türk bodun illä-dük il-i-n ičyin-u id-mis...* (Kul Tigin East 6)
Turkic people give_state-PTCP state-POSS.3.SG-ACC lose-CVB send-PST...
'Turkic people lost the state that they were given and went away...'

Qayanla- 'to bring a kaghan' (*qayan* 'kaghan' + *-la*):

(14)...*qayanla-duq qayan-i-n yitir-ü id-mis...* (Kul Tigin East 7)
...give_kaghan-PTCP kaghan-POSS.3.SG-ACC lose-CVB send-PST
'...they lost the kaghan that they were given and went away...'

Yoyla- 'to hold a mourning ceremony, to mourn' (*yoy* 'mourning ceremony' + *-la*):
(15) *Bunča bodun qobran-ïp yoyla-dï...* (Kuli Chor 27)

This_many people come_together-CVB hold_a_mourning_ceremony...
'This many people came together and held a mourning ceremony...'

Topla- 'to gather, to collect' (*top* 'pellet' + *-la*):

(16) *Yuyqa eriklig topla-yu-lu uçuz er-miš, yinçgä eriklig üz-gülü uçuz* (Tonukuk 13)

Thin being gather-INF easy AUX-PST slim being pull_out-INF easy
'It is easy to gather if it is thin, it is easy to pull out if it is slim'

Aqunla- 'to march, to attack' (*aqun* 'march, attack' + *-la*):

(17) *Qamuq baliq-a täg-di-m, aqunla-dï-m, al-tï-m* (Ongin 9)

All city-DAT reach-PST-1.SG march-PST-1.SG get-PTS-1.SG
'I reached, marched and went all the cities'

Sülä- 'to march, to attack' (*aqun* 'march, attack' + *-lä*):

(18) *Otuz yaş-ïm-a Besbaliq tapa sülä-di-m* (Bilge Kaghan East 28)

Thirty age-POSS.1.SG-DAT Besbalik against march-PST-1.SG
'When I was thirty I marched against Besbalik'

Qışla- 'to spend the winter' (*qış* 'winter' + *-la*):

(19) *...(qırq yaş-ï)m-a Mayı quryan qışla-duqda yut boltı* (Bilge Kaghan East 31)

...(forty age-POSS.1.SG)-DAT Maghi mount spend_the_winter-CVB disaster be-PST
'...at the age of forty when we spent the winter at Mount Maghi a disaster occurred'

Ötlä- 'to say, to ask, to request' (**öt* 'request' + *-lä*):

(20) *...teñri bilgä kağanka adırıl-ma-lim, az-ma-lim tiyin anča ötlä-di-m...* (Ongin 11)

...God wise kaghan be_seperated stray say-CVB say-PST-1.SG...

'Let us not be separated, not stray from our wise kaghan who is like a God, – said I...'

Opla- 'to attack' (*op* – onomatopoeic word + *-la*):

(21) *Küli čor opla-yu täg-ip sü-si-n...* (Kuli Chor 10)

Kuli Chor attack-CVB reach-CVB army-POSS.3.SG-ACC...
'Kuli Chor attacking and reaching to their army...'

Denominal verb making suffix *-la* makes the verbs with the meaning 'to add something to a particular object'. As it can be seen it is closely related to the suffixes given above. The same element *-l* is participating here with the meaning of 'existence', while the formant *-a* adds the meaning of movement, action, and turns the nominals into verbs.

Serebrennikov and Hajiyeva linked this suffix to the plural marker *-l* just like the suffixes given above (Serebrennikov, 2002, p. 304).

There are some other suffixes in the modern Turkic languages that are formed with the element *-l* including the adjective making suffix *-las/-läs*: *itläs* 'meaty' (Bashkir), *tuklas* 'hairy' (Uzbek). *-lar/-lär*, the most common plural marker in Turkic, is also based on the element *-l*, because it also depicts the existence of something.

3.2. The element *-g* and its derivatives.

Some of the suffixes formed with one-sound formants were also added to the verbs in order to make nominals. The morphemic element *-g/-γ* is one of the elements that participated in the formation process of these suffixes including *-iy, -yu, -ya, -yaq*. These are the suffixes that make nouns and adjective with various meanings from verbs.

The most productive suffix formed with this element is the suffix *-γ/-g/-iy/-ig/-uy/-üg* making nouns and adjectives from verbs:

Ülüg 'part' (**ül-* 'to divide' + *-üg*):

(21) *Iki ülüg-i atliγ er-ti, bir ülüg-i yaday er-ti* (Tonukuk 4)

Two part-POSS.3.SG mounted AUX-PST one part-POSS.3.SG pedestrian AUX-PST
'Two parts of them were mounted, and one part of them was pedestrian'

Bilig 'knowledge' (*bil-* 'to know' + *-ig*):

(22) *...bil-mäz bilig-in bil-tüg-im-in, ö-dük-im-in bunča bitig biti-dim* (Kuli Chor 28)

...know-NEG-PTCP knowledge-ACC know-PTCP-POSS.3.SG-ACC think-PTCP-POSS.3.SG-ACC this_much write-PST-1.SG

'...I wrote this much that I know and think the knowledge that is not known'

Uluy 'old, aged, big' (*ul-* 'to grow up' + *-uy*):

(23) *Öz-üm qarī bol-ti-m, uluy bol-ti-m* (Tonukuk 56)

Self-POSS.1.SG old be-PST-1.SG aged br-PST-1.SG

'I myself became old, became aged'

Bitig 'writing' (*biti-* 'to write' + *-g*):

(24) *...bunča bitig biti-di-m* (Kuli Chor 28)

...this_many writing wrote-PST-1.SG

'...I wrote this many writings'

Süčig 'sweet' (*süči-* 'to become sweet' + *-g*):

(25) *Süčig sab-ī-ña, yīmšaq ayī-sī-ña artur-īp üküš, türk bodun, öl-tig* (Kul Tigin South 6)

Sweet word-POSS.3.SG-DAT precious present-POSS.3.SG-DAT deceive-PST many Turkic people die-PST

'Turkic people, you were deceived by their sweet words, precious presents, and many of you died'

Körüg 'spy' (*kör-* 'to see' + *-üg*):

(26) *Anča olur-İR erikli oğuz-dantan körüg käl-ti* (Tonukuk 8)

Like_{that} sit-PRS Oghuz-ABL spy come-PST

'As they were sitting like that a spy came from Oghuz'

Ariğ 'clean' (*ari-* 'to become clean' + *-ğ*):

(27) ...*yan-alım, ariğ obut-İ yäg, ti-di* (Tonukuk 37)

...return-IMP clean ...-POSS.3.SG good, say-PST

'...let us return, clean ... is better, said he'

Ötüğ 'news, message' (*öt-* 'to say' + *-üg*):

(28) *Yalabač-İ, edgü sab-İ, ötüğ-i gäl-m-äz ti-yin yay-İN sülä-di-m* (Bilge Kaghan East 39)

Messenger good word-POSS.3.SG news-POSS.3.SG come-NEG-FUT say-CVB
summer-INS march-PST-1.SG

'As their messenger, their good word, news did not come, I marched in the summer'

Qapığ 'door' (**qap-/qapa-* 'to close'):

(29) *Tämir qapığ-qa tägi ir-ti-miz...* (Tonukuk 45)

Temir kapigh-DAT till reach-PST-1.PL...

'We reached to Temir kapigh...'

Qamaşığ 'bad situation' (*qamaš-* 'to suffer, to be in a bad, unbearable situation'):

(30) *Eč-im qağan il-i qamaşığ bol-tuqınta...* (Kul Tigin North 3)

Uncle-POSS.1.SG kaghan state-POSS.3.SG unrest be-CVB...

'When an unrest took place in the state of my uncle, kaghan...'

Kičig 'a little' (**kiči-* 'to make small, to reduce'):

(31) ...*Tüpütke kiçig tægmedim...* (Kul Tigin South 3)

...Tibet-DAT a_{little} reach-NEG-PST-1.SG...

'...a little road remained for me to reach to Tibet...'

Sünüg 'spear' (**sün-* 'to fight' + *-üg*):

(32) *Sünüg batım-İ qar-İy sök-ipän...* (Bilge Kaghan East 26-27)

Spear depth-POSS.3.SG snow-ACC pierce-CVB...

'By piercing snow of a depth of spear...'

Tirig 'alive' (*tir-* 'to live' + *-ig*):

(33) ...*öl-täçi bodun-İy tirig-rü igi-ti-m...* (Kul Tigin East 29)

...die-PTCP people-ACC alive-LAT raise-PTS-1.SG...

'I made the people who were going to die, alive...'

Qatıy 'hard, solid, firm, tough' (*qat-* 'to toughen, to harden' + *-iy*):

(34)...bu sab-ım-ın edgüti esid, *katıydı* tıñla! (Kul Tigin South 2)

...this word-POSS.1.SG-ACC well hear solidly listen

'...Hear well, listen solidly to this word of mine!'

Keçig 'pass' (*keç-* 'to pass' + *-ig*):

(35)Qarluq-ıy *keçig-in* t... si-ma-dı (Kul Chor 20)

Karluk-ACC pass-INS ... broke

'He did not defeat the karluks with a pass'

There is also the suffix *-q/-k, -iq/-ik/-uq/-ük* in the language of the Inscriptions which is related functionally and genetically to the suffix given above:

(36)*İduq* 'sacred' (*id-* 'to send' + *-uq*):

Teñri, Umai, *ıduq* yer, sub bas-a bir-ti erinç (Tonukuk 38)

God Umai sacred palce water push_down-CVB give-PST MOD

'God, Umai probably oppressed the sacred Turkish place and water'

Toq 'satiated' (**to-* 'to be satiated' + *-q*):

(37)Bodun boyaz-ı *toq* er-ti (Tonukuk 8)

People throat replete-POSS.3.SG AUX-PST

'The throat of the people was satiated'

Kölik 'baggage animal' (*köl-* 'to harness' + *-ik*):

(38)İngäk *kölik-in* Toyla-da oyuz käl-ti (Tonukuk 15)

Cow baggage_animal-INS Toghla-LOC oghuz come-PST

'In Toghla, Oghuz came with cows and baggage animals'

Tutuq 'military governor' (*tut-* 'to catch' + *-uq*):

(39)Tabyač On *tutuq* bes tümän sü käl-ti (Bilge Kaghan East 25)

Tabghach On military_governor five ten_thousand army come-PST

'Tabghach On tutuk's army of fifty thousand came'

Yoluq 'poor, weak' (*yol-* 'to fleece' + *-uq*):

(40)Türk bodun yit-mə-zün ti-yin, *yoluq* bol-ma-zun ti-yin... (Ongin 3)

Turk people disappear-NEG-IMP.3.SG say-CVB weak be-NEG-IMP.3.SG say-CVB

'...for Turkic people not to disappear, not to become weak...'

Yayyuq 'near, close' (*yay-* 'to near' + *-uq*):

(41)...*yayyuq* er-sär, edgü ayı bir-ür... (Kul Tigin South 7)

...close AUX-CON good present give-PRS...

'...if they are near then they give good presents...'

Yaraq ‘weapon’ (*yara-* ‘to be suited, to serve’ + *-q*):

(42) Bu türk bodun-da *yaraq*lıy yayı-γ kältür-mä-di-m... (Tonukuk 54)

This Turk people-LOC armed enemy-ACC bring-NEG-PST-1.SG...

‘I didn’t bring armed enemy to this Turkic people...’

Turuq ‘thin’ (*tur-* ‘to lose weight’ + *-q*):

(43) Saqın-ti-m: *turuq* buqalı, sāmiz buqalı arqa-da bil-sär... (Tonukuk 5-6)

Think-PST-1.SG thin bull thick bull back-LOC know-CON...

‘I thought if someone knew a thin bull and a thick bull at the back...’

Yimşaq ‘valuable, soft’ (*yimşa-* ‘to soften’ + *-q*):

(44) Süçig sab-ï-ŋa, *yimşaq* ayı-si-ŋa artur-ïp ükü, türk bodun, öl-tig (Kul Tigin South 6)

Sweet word-POSS.3.SG-DAT precious present-POSS.3.SG-DAT deceive-PST many Turkic people die-PST

‘Turkic people, you were deceived by their sweet words, precious presents, and many of you died’

Buyuruq ‘military rank’ (*buyur-* ‘to command’ + *-uq*):

(45) ... iç *buyuruq*-ï bæg Irgin başla-yu buyuruq bunça amtï bæg-lär kaŋ-ïm qayan-qa... (Bilge Kaghan South 14)

...inner buyuruk beg Irgin begin-CVB buyuruk this_many now beg-PL father-POSS.3.SG kaghan-DAT...

‘...their inner buyuruk, buyuruks beginning from beg Irgin so many begs now to my father, kaghan...’

Artuq ‘more’ (*art-* ‘to increase’ + *-uq*):

(46) *Artuq* yilqı-γ igit-i... (Kuli Chor 25)

More herd-ACC increase-CVB...

‘Increasing their herd...’

İraq ‘far’ (**ira-/yira-* ‘to move away’ + *-q*):

(47) Süçig sab-ïn, yimşaq ay-ïn ar-ïp *iraq* bodun-ïy ança yayut-ır er-mis (Kul Tigin South 5)

Sweet word-INS valuable present-INS to_be_deceived-CVB people-ACC this_much bring_closer-PRS AUX-PST

‘They were bringing closer the distant people by deceiving with their sweet words and valuable presents’

The suffix *-yu/-gü* makes agent nouns and adjectives from verbs:

Qoriyu 'guard' (*qori-* 'to protect' + *-yu*)

(48) *Qoriyu eki-üç kisiligü täz-ip bar-dī* (Bilge Kaghan East 41)

Guard two-three people run-CVB go-PST

'He ran away with guards of two-three people'

Kürägü 'rebel, runaway' (*kürä-* 'to run away' + *-gü*)

(49) *Küregü-ñ-in üçün, igid-miš bilgä qayan-ñ-ñ-in er-miš bar-miš edgü el-ñ-[e] kentü yañil-tñy, yablaq kigür-tüg* (Kul Tigin East 23)

Rebel-POSS.3.SG-DAT for raise-PST wise kaghan-POSS.3.DAT AUX-PST go-PST
good state-POSS.3.SG-DAT self be_mistaken-PST bad bring-PST

'For their rebellion they were mistaken and brought bad things to their wise kaghan who raised them, and to their good state that they could move easily'

Qarayu 'guard, watch' (*qara-* 'to look, to watch' + *-yu*)

(50) *Arquy qarayu-γ ulγart-dī-m...* (Tonukuk 53)

Tower intelligence-ACC raise-PST-1.SG...

'I raised intelligence towers...'

The suffix *-γα/-gä* also makes adjectives from verbs:

Tamya 'seal, stamp' – in the word *tamyačī* (*tam-* 'to burn' + *-γα*):

(51) *On oq oyl-īm turgis qayan-ta Maqrač tamyačī, Oyuz Bilgä tamyačī käl-ti* (Kul Tigin North 13)

On ok son-POSS.1.SG turgis kaghan-LOC Makrach brander Oghuz Bilge brander
come-PST

'From my sons, On ok and from turgis kaghan Makrach brander and Oghuz Bilge brander came'

Bilgä 'wise' (*bil-* 'to know' + *-gä*):

(52) *Qayan-ī alp er-mis, ayyučī-si bilgä er-mis* (Tonyukuk 10)

Kaghan-ACC brave be-PST adviser-POSS.3.SG wise be-PST

'Their kaghan was brave, their adviser was wise'

Qisya 'short, easily' (*qīs-* 'to shorten' + *-γα*):

(53) *...öz-i qisya kargäk bol-tī* (Kuli Chor 23)

...self-POSS.3.SG short die-PST

'...he himself died easily'

Yuyqa ‘slim’ (**yub-* ‘to thinner’ + *-qa*):

(54) *Yuyqa* qalın bol-sar, topla-yuluq alp er-mis, yinçgä yoyun bol-sar, üz-gülük alp er-mis (Tonukuk 13-14)

Thin thick be-COND gather-INF brave AUX-PST slim stout be-CVB pull_out-INF brave AUX-PST

‘It would be bravery if a thin thing became a thick one, it would be bravery if a slim thing became a stout one’

Yinçgä ‘slim’ (**yinç-/inc-* ‘to thineer’ + *-gä*):

(55) *Yuyqa* eriklig topla-yulu uçuz er-miš, *yinçgä* eriklig üz-gülü uçuz (Tonukuk 13)

Thin being gather-INF easy AUX-PST slim being pull_out-INF easy

‘It is easy to gather if it is thin, it is easy to pull out if it is slim’

Some turkologists determine the suffix *-yaq/-gäk* making nouns from verbs in the language of Inscriptions. Nevertheless, some of the words that contain the part *yaq/gäk* were formed from verbs with the suffix *-q/-k*, and the others cannot be clearly identified as derivative nouns. Here are the examples:

Kärgäk ‘need’ (*kärgä-* ‘to need’ + *-k*) – in the word *kärgäksiz*:

(56) ... altun, kümüs *kärgäksiz* kälür-ti (Bilge Kaghan South 11)

...gold silver more_than_enough bring-PST

‘...they brought gold, silver more than enough’

Ämgäk ‘torture’ (*ämgä-* ‘to suffer, to grieve’ + *-gä*):

(57) On ok bodun *ämgäk* kör-ti (Kul Tigin East 19)

On ok people torture see-PST

‘On ok people suffered’

Bulyaq ‘unrest, disorder’ (*bulya-* to mix’ + *-q*):

(58) Teñri, yer *bulyaq-in* üçün ödin! (Bilgä Kaghan East 29)

Sky ground mix_up-GEN for ...

‘As sky and ground mixed up ...!’

Qıryay ‘edge, verge’ (**qırya-* ‘to break’ + *-ya*) – in the word *qıryaylıy*:

(59) ...*qıryaylıy* qutay-ın, äkinlig isigti-n, özläk at-ın, adyır-ın, qara kis-in... (Bilge Kaghan North 11)

...uncut silk-ACC for_planting grain-ACC thoroughbred horse-ACC stallion-ACC black sable-ACC...

‘...uncut silk, grain for planting, thoroughbred horses, stallions, black sables...’

An interesting fact about this matter is the use of these suffixes with the same roots or stems. For example, in some modern Turkic languages, the noun *bilgi* is used instead of the noun *bilig* 'knowledge'. *Bilgi* has the same root as *bilig*, but a different suffix, *-gi*. It is considered to be the modern form of the suffix *-yu/-gü*, and it proves that the suffixes *-iy* and *-yu* are related to each other. It was also registered in the adjectives *artuq* 'more' in Orkhon Inscriptions and *artyu* 'more' in *Gutadghu bilig* (Drevnetyurksiy, 1969, p. 57); *qatiy* 'tough' in Orkhon Inscriptions and *qatyu* 'tough' in *Divanu lughat-it-turk* and *Gutadghu bilig* (Drevnetyurksiy, 1969, p. 432).

The analysis of the words formed with the suffix *-ya/-gä* explains the relationship between the suffixes *-ya/-gä* and *-iy/-ig*. For instance, the noun *bitigäçi* 'scribe', 'pupil' contains the suffixes *-ig* and *-ä* which to our opinion, comes together to make the suffix *-ya/-gä*. There is a noun *qapya* in the dictionary of Mahmud Kashghary (Drevnetyurksiy, 1969, p. 121) which has the same meaning with the word *qapiy* 'door' in the Inscriptions. Even though they make different meanings the addition of the suffixes *-ig* and *-gä* to same verbal root as in *bilig* 'knowledge' and *bilgä* 'wise' also hints to the relationship of these suffixes. The same thing can be said to the nominals *ög* 'thought, mind' and *ögä* 'wise'.

And as mentioned above, the suffix *-yaq/-gäk* consists of two morphemes; the denominal verb making suffix *-ya/-gä* and *-q/-k* which is a close relative of the suffix *-y/-g*. This insight is very common in turkology. It began from Ramstedt who explained the formation of this suffix as *-ya/-gä* + *-q/-k*. Baskakov and Sanjeyev linked this suffix to *-yay/-gäy* (Khabičev, 1971, p. 41). Kononov expressed a different opinion explaining this suffix with the combination of *-y/-g* (indicator of causative voice) and *-q/-k* (deverbal nominal making suffix) (Kononov, 1980, p. 91). Note that *-y/-g* was not the indicator of causative voice, but the indicator of passive voice, and the analysis of the words with this suffix confirms that the verb to which the suffix *-q/-k* was added in this case are the verbs with the suffix *-ya/-gä*, such as *kärgä-* 'to need', *ämgä-* 'to suffer, to grieve', *bulya-* 'to mix'.

All in all, there is a functional resemblance between some deverbal nominal (noun and adjective) making suffixes including *-y/-g/-iy/-ig/-uy/-üg*, *-q/-g/-iq/-ik/-uq/-ük*, *-yu/-gü*, *-ya/-gä*, and *-yaq/-gäk* which leads us to think that all of these suffixes are genetically related.

3.3. The element -m and its derivatives. Another morphemic element that took part in making deverbal nominal suffixes is *-m* which is observed in the suffixes *-im*, *-ma* and *-maq*. The suffixes mostly make nouns depicting process and sometimes the result of act. The last two suffixes are used as the markers of infinitive in the modern Turkic languages, especially in the language of Oghuz group.

The suffix *-im* makes nouns and adjectives depicting results of the act given in the verbs:

Batim 'depth' (*bat-* 'to wane' + *-im*):

(60) Sünüg *batim-i* qar-iy säk-ipän (Bilge Kaghan East 26-27)

Lance depth-POSS.3.SG snow-ACC destroy-CVB

'By destroying the snow of the depth of a lance'

Kedim 'garment' (*ked-* 'to wear' + *-im*) – as a part of the word *kedimlig* 'dressed':

(61) Üçünç Yägin Silig bäg-iñ *kedimlig* toriy at bin-ip täg-di... (Kul Tigin East 33)

Third Yegin Silig beg-GEN dressed brown horse mount-CVB reach-PST...

'Thirdly, he reached by mounting Yegin Silig beg's brown horse...'

Barim 'livestock, wealth' (*bar* 'there is' + *-im*):

(62) Tañut bodun-iy boz-di-m, oyl-i-n, yotaz-i-n, yülqi-si-n, barim-i-n an-ta al-ti-m (Bilge Kaghan East 24)

Tangut people-ACC destroy-PST-1.SG son-POSS.3.SG-ACC herd-POSS.3.SG-ACC cattle-POSS.3.SG-ACC that-LOC get-PST-1.SG

'I destroyed Tangut people, got their sons, herds and cattle there'

There is not much thoughts regarding to the origin of this suffix, excluding M.Khabičev's explanation which relates *-im* to another deverbal nominal making suffix *-in* (Khabičev, 1971, p. 265).

-ma was registered only in two words, and one of them cannot be analysed structurally because of the unclearness of the root:

Yalma 'garment, cloak' (**yal-* + *-ma*)

(63) Yaraq-in-ta *yalma-sin-ta* yüz artuq oq-un ur-ti... (Kul Tigin East 33)

Weapon-POSS.3.SG-LOC garment-POSS.3.SG-LOC hundred more arrow-INS shoot-PST...

'He shot their weapons and garments with more than hundred arrows...'

Yälmä 'group of intelligence' (*yäl-* 'to gallop' + *-mä*)

(64) *Yelmä*, qarayu edgüti ur-yil, basit-ma, ti-mis (Tonukuk 34)

Intelligence_group guard well set_up-IMP.2.SG make_defeated-NEG say-PST

'Set the intelligence groups and guards well, do not make them defeated, said he'

Kononov was one of the turkologists for whom the suffix *-ma* originated from the combination of the morphemes *-m* and *-a* (Kononov, 1980, p. 93). The genetical relationship between the suffixes *-m*, *-ma* and *-maq* had been accepted in turkology

for a long time (Khabičev, 1971, p. 221). The most distinct opinion on the suffix *-ma* was expressed by Serebrennikov and Hajiyeva, they showed *-pa/-pe* as the original form of this suffix (Serebrennikov, 1979, p. 104). Nevertheless, *-pa/-pe* looks more as a phonetical variation than an original form.

The suffix *-maq* occurred only in one word before the suffix *-čĭ*:

Armaqčĭ 'liar' > *armaq* 'liar' + *-čĭ* (*ar-* 'to deceive, to lie' + *-čĭ*)

(65)...tabğaç bodun təbligın kürlig üçün, armaqçısın üçün... (Kul Tigin East 6)

...Tabghach people sly-GEN cunning for liar-GEN for...

'...as Tabghach people were sly, cunning and liars...'

The connection of the suffixes *-ma* and *-maq* is clearer; both of the suffixes are used as the markers of infinitive in some modern Turkic languages, and both of them were derivative formants in Orkhon Turkic. It seems that the suffixes *-ma* and *-maq* with processual meaning is originated from the suffix *-m*, i.e. the formant *-a* adds processual meaning to *-m*, while *-aq* increases this processuality.

4. Conclusion

Although making suffixes from independent words are possible theoretically, the historical materials of Turkic contradict this idea. The analyses of word-formation in the language of Orkhon Inscriptions prove that the most of the derivative suffixes are originated from one-sound morphemic elements that are common for them.

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