Compounding in Aral–Caspian Kipchak languages

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Research on compounding as an instrument of word formation is a rather new field in Turcology. This type of word formation might be used in various situations, for instance, it can perform the function of reduplication or suffixation. Therefore, compounding should be analysed from the aspect of structural, semantic and syntactic characteristics in Turkic languages. The present study provides an overview of compounding in the Aral–Caspian Kipchak languages applying the latest approaches of linguistics. The corpus of data used is collected from various dictionaries and grammars, including written materials, mirroring spoken languages.

1. Introduction

The aim of this study is to provide classification possibilities of the compounds in the Aral–Caspian Kipchak languages including Kazakh, Kirghiz, Karakalpak and Noghay. Another goal is to overview the characteristics of the compounds in these languages and to discuss some controversial questions on the subject, principally focusing on the structural and the semantic aspects. The topic of this study is specifically relevant. Although many works deal with compounding from the aspect of general linguistics, the number of the papers about compounding in Turkic languages is very small except for isolated examples. Consequently, I intend to provide a classification of compounds in the above mentioned Kipchak languages applying some of the latest methods of linguistics. I have chosen as the model of theoretical background the classification of the Morbo/Comp 1 project based on research by Bisetto and Scalise. The data in this article was collected from various dictionaries of these languages (see in References) and online written sources. My

¹ The Project of the Department of Foreign Languages in Bologna, Italy, with a data base of compounds, which aims to classify compounds primarily in Indo–European languages. For further information, see http://www.morbocomp.sslmit.unibo.it/

whole material contains approximately 500 items, but because of the space limitations of this article, I provide only some illustrations.

2. Research on compounds

The issue of compounds in general linguistics, as mentioned above, is a wellresearched subject: numerous articles can be found about the role of compounds in word formation and a number of systems were suggested for their classification. I will mention only those sources which are relevant in this case. The first undertaking to classify compounds is Bloomfield (1933), who divided them into two groups, namely, exocentric and endocentric compounds and distinguished two more subcategories in the endocentric group, subordinative and coordinative compounds.² Spencer (1991) does not distinguish subgroups in his classification, but he has three categories, subordinative, coordinative and appositional compounds, disregarding the exocentric and endocentric classification. Fabb has categorized compounds according to headedness in three groups: those with no head, one head and two heads. Haspelmath (2002: 85-98) has created in his classification the new category of affix compounds and has differentiated five groups, meanwhile Bauer (2001: 695-707) and Booij (2005: 75–95) differentiate four in their works. The main groups of these three categorizations are exocentric, endocentric, coordinative, possessive and appositional compounds (Bisetto and Scalise 2005: 321–325).

A problem of these classifications is that the categories overlap. Moreover, some compounds cannot be classified, because not every attribute of compounds has been taken into consideration. However, the proposal by Bisetto and Scalise (2005: 326–330) attempt an unambiguous, clear and simple classification on the basis of syntactic constructions. According to them, every compound has either exocentric or endocentric attributes marking the presence or the absence of the head, providing the base of their classification. Besides exocentricity/endocentricity, compounds might be classified into three groups, namely, subordinate, attributive and coordinate compounds (Bisetto and Scalise 2005: 321–328). This grouping classifies compounds logically and reasonably. Because of this consideration, I have chosen to apply this method in the case of the Aral–Caspian Kipchak branch of Turkic.

² For the definition of the concepts, see Bisetto and Scalise (2005).

3. Compounds in Turkic languages

In Turcology, research on word formation is confined mostly to suffixes, with sourceson Turkic compounds limited to only one.

Research covers every aspect of compounds in Turkish: their structure, semantics, headeness and stress. Dede's research is the first to be emphasized, who analysed in her 1978 dissertation the semantic and syntactic properties of Turkish nominal compounds. Göksel discussed in a number of studies the compounding system of Turkish, first categorizing them on the basis of the findings of the MorboComp Project. Bağrıaçık and Ralli (2014) describe nominal-nominal concatenations in Turkish compounding. As for the Kipchak languages, few studies discuss the topic of compounding and are of relevance for the present paper. Krejci and Glass (2015) partially touch on compounds in Kazakh in their paper about the adjective/noun distinction in Kazakh. Van Hofwegen (2014) focuses on nominal compounds in the Kazakh language, discussing the remarks of Göksel and Haznedar (2007) regarding Turkish compounds, which will be also referred to below regarding the classification possibilities of the Aral-Caspian languages and their characteristics. The studies concentrate generally on nominal compounding in Turkic languages and leave other categories like verbal, adverbial and pronominal compounds out of consideration, even though such constructions can be found in the Aral-Caspian branch. Besides, it would be important to examine the influence of other non-Turkic languages, which probably had considerable effect on compounding as well. In our case, two languages must be taken in account, Russian and Persian.

4. Compounds in Kipchak languages

Similarly to all agglitunative languages, Kipchak languages have many bound morphemes with many allomorphic variants. Words are formed usually through suffixation and there is a lot of variation for creating new words and creating notions (Johanson 1998: 34–38). Thus, word formation in Kipchak languages is a very productive process, but not the only one. Generally, in nominal word formation there are numerous compounds. The compounds are often formed by joining two nouns, like the Kazakh $k\bar{u}n\ \bar{z}ar\bar{u}$ 'sunlight' ($k\bar{u}n$ 'day, sun' + $\bar{z}ar\bar{u}$ 'light' +(s)I possessive suffix) or Noghay $y\bar{u}l\ \bar{s}ag\bar{u}$ 'season' ($y\bar{u}l$ 'year' + $\bar{s}aq$ 'time, period, age' +(s)I possessive suffix). The second element of these nominal constructions contains generally the third person possessive suffix, which is +(s)I in every Aral–Caspian

Kipchak language. For this suffix, I use henceforth Göksel's term linking element. However, the linking element cannot be found in every case in the same type of nominal construction. This issue will be discussed below. Another sizeable group of compounds is composed of adjective plus noun or adjective plus adjective elements.³ Furthermore, verbal compounds (Noun + Verb or Verb + Verb) are also found in this Kipchak group, as an outstanding part of the system. Tables 1, 2, 3, and 4 summarize the compounds of the Aral–Caspian languages taking in account endo–and exocentricity and Bisetto and Scalise's classification:

Sub	Subordinate Attributive		outive	Coord	linate
endocentric	exocentric	endocentric	exocentric	endocentric	exocentric
azïq–tülik	kelisimsöz	aġaš üy	aq qandïlïq	meken–žay	aldaqašan
dükeni	'contract' <	'timber	'leukemia' <	'residency' <	'long ago' <
'grocery' <	kelisim	house' <	aq 'white' +	meken	alda 'before,
azïq–tülik	'agreement,	aġaš 'tree,	qan 'blood'	'place' + žay	forth, ahead'
'food,	accord' + söz	wood,	+DI	'residence,	+ qašan
feeding' +	'word';	timber' + üy	{NN/Adj.}	accommoda-	'when, as';
düken 'shop,		'house,	+ <i>LIK</i> {NN};	tion';	
store' $+(s)I$		home,			
{Poss.Sg3};		building';			
kitap söresi	qolšatïr	tüski tamaq	aqqaynar	it–qus	alïp–satar
'bookshelf'<	'umbrella' <	'lunch' <	'champagne'	'predators' <	'tradesman'<
kitap 'book'	qol 'arm,	tüski	< aq 'white'	it 'dog' +	<i>al</i> – 'to buy,
+ sore 'shelf'	hand' + šatïr	'meridion,	+ qayna–	qus 'bird';	take' –Ip
+(s)I	'tent, roof';	meridional'	'boil, blaze'		$\{CV\} + sat$
{Poss.Sg3};		+ tamaq	$-(A)r \{CV\};$		'to sell'
		'food, throat'			$-(A)r \{CV\};$
tuwġan žeri	šaŋsorġïš	laqap at	alqïzïl	dos–dušpan	ämir–qudiret
'birthplace'	'vacuum	'nickname' <	'purple' < al	'everybody'	'power' <
< tuw- 'to be	cleaner' <	laqap 'alias,	'bright tone'	< dos	ämir
born'	šaŋ 'dust' +	shortcut' + at	+ <i>qïzïl</i> 'red';	'friend' +	'command,
-GAn+	sor- 'to	'name';		dušpan	order' +
{CV} + <i>žer</i>	absorb, suck'			'enemy';	qudiret
'place' +(s)I	- <i>GIš</i> {CV};				'strength,
{Poss.Sg3};					power'.

Table 1. Compounds in Kazakh

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³ According to Krejci and Glass (2015: 1–12), the noun/adjective distinction in Kazakh is not clear, but in compounding parts of speech like nouns and adjectives play an important role in compounding. Because of this I analyse them separately.

Sub	Subordinate		ributive	Coo	ordinate
endocentric	exocentric	endocentric	exocentric	endocentric	exocentric
abet ubagï	čaŋ sorguč	deŋiz baš	altïn kemer	adïr–čïbïr	bāz–bāz
'lunchtime'	'wacuum	'conceited' <	'gold belt' <	ʻhills, hilly	'sometimes'
< abet	cleaner' <	deŋiz 'sea,	altïn 'gold' +	region' <	< bāz 'some,
'lunch' +	čaŋ 'dust' +	lake' + baš	kemer 'belt';	adïr 'hill' +	a little';
ubaq 'time'	sor- 'to	'head';		čïbïr	
+(s)I	absorb, suck'			'mountain	
{Poss.Sg3};	<i>-GXč</i> {CV};			range';	
at jalï	jer jüzü	aq/tunuq sū	ker sarï	alïš–berïš	boz–boz
'horse mane'	'surface' <	'vodka' < aq	'pale-face,	'shopping' <	'dun' < boz
< at 'horse'	<i>jer</i> 'place' +	'white'/	white face' <	al- 'to buy,	'grey';
+ j̃al 'mane'	<i>jüz</i> 'face'	tunuq	ker 'brown,	take' – <i>Iš</i>	
+(s)X	+(s)X	'transparent'	chestnut' +	{VN} + ber-	
{Poss.Sg3};	{Poss.Sg3};	$+ s\bar{u}$ 'water';	sari	'to give' − <i>Iš</i>	
			'yellow';	{VN};	
ata meken	tiš jūģuč	čay qašïq	qara altïn	bātïr qïz	aqe–üke
'homeland'	'toothbrush'	'teaspoon' <	'rock-oil' <	'heroine' <	'brothers' <
< ata 'father,	< tiš 'tooth'	čay 'tea' +	qara 'black'	bātïr 'hero'	aqe 'father,
dad' + meken	+ <i>jū</i> – 'to	qašïq	+ altïn	+ <i>qïz</i> 'girl';	brother' +
'place';	wash' – <i>GXč</i>	'spoon';	'gold';		üke 'younger
	{CV};				brother'.

Table 2. Compounds in Kirghiz

Subordinate		Attributive		Coordinate	
endocentric	exocentric	endocentric	exocentric	endocentric	exocentric
ata qonïs	bawïr et	aqïlï az	qara kök	aġa–ini	bolar–
'homeland'	'diaphragm'	'stupid, fool'	'dark blue' <	'brothers' <	bolmas
< ata 'father'	< bawir	< aqil 'mind,	qara 'black'	aġa 'brother,	'hardly' <
+ qonïs	'liver' + et	logic' + (s)I	+ kök 'blue';	elder	bol- 'to be'
'stop,	'meat';	{Poss.Sg3}		brother' + ini	–Ar
station';		+ az 'few,		'younger	{Aor.Sg3} +
		little';		brother';	bol- 'to be'
					-mAs
					{Neg.Aor.Sg
					3};
köz žasï	orïnbasar	eki qabat	qara may	aġayïn–	demalïs
'tear' < köz	'vicarious,	'pregnant' <	'lubricant' <	tuwġan	'rest' < <i>dem</i>
'eye' + žas	supply' <	eki 'two' +	qara 'black'	'relatives' <	'respiration'

'tear' $+(s)I$	orin 'place,	qabat 'layer,	+ may	aġayïn	+ <i>al</i> - 'to
{Poss.Sg3};	ground' +	floor';	'grease, fat';	'relative' +	buy, take' –
	bas- 'to			tuw- 'to be	<i>Is</i> {CV};
	press, push'			born' – <i>GAn</i>	
	$-(A)r \{CV\};$			{CV};	
teŋiz žaġasï	qïlïš balïq	er žürek	qurġaq žer	kelim–ketim	bala–šaġa
'seaside' <	'swordfish'	'brave' < <i>er</i>	'mainland' <	'guests' <	'family' <
teŋiz 'sea,	< qïlïš	'valiant,	<i>qurġaq</i> 'dry'	<i>kel</i> - 'to	bala 'child'
lake' + <i>žaġa</i>	'sword' +	man' + <i>žürek</i>	+ žer 'place,	come' -Im	+ šaġa
'side' $+(s)I$	balïq 'fish';	'heart';	ground';	{VN} + <i>ket</i> -	'group,
{Poss.Sg3};				'to go' –Im	relative'.
				{VN};	

Table 3. Compounds in Karakalpak

Subo	Subordinate		butive	Coor	rdinate
endocentric	exocentric	endocentric	exocentric	endocentric	exocentric
ana tili	balta sap	aq köŋili	aq kök	aġalï–inili	baqa–šanaq
'mother	'axe haft' <	'honest' < aq	'light blue'	'brothers' <	'small shell'
tounge' < ana	balta 'axe' +	'white' + köŋil	< aq 'white'	aġa 'brother,	< baqa
'mother' + til	sap 'stem,	'mood, mind'	+ <i>kök</i> 'blue';	elder brother'	'frog' +
'language'	shaft';	+DI		+DI	šanaq 'cup,
+(s)I		{NN/Adj.};		{NN/Adj.} +	bowl';
{Poss.Sg3};				ini 'younger	
				brother' +DI	
				{NN/Adj.};	
at azbarï	awïz ašuw	beti qalïn	bos söz	bolsa bolar	ata–ana
'stable' < at	'Iftar,	'shameless' <	'silliness' <	'maybe,	'parents' <
'horse' +	evening meal	bet 'face' $+(s)I$	bos 'empty'	possible' <	ata 'father'
azbar 'yard'	in fasting' <	{Poss.Sg3} +	+ söz	bol- 'to be' -	+ ana
+(s)I	awiz 'mouth'	qalïn 'thick,	'word';	sA	'mother';
{Poss.Sg3};	+ <i>aš</i> – 'to	fat';		$\{Cond.Sg3\} +$	
	open' –uw			bol- 'to be' -	
	{VN};			Ar	
				{Aor.Sg3};	
ay yarïġï	tün ortasï	azarlï awïz	kiyiz etik	at–mat	ömir–ömirge
'moonlight' <	'midnight' <	'foulmouthed'	'felt boots' <	'horsekinds'	'forever' <
ay 'moon' +	tün 'night' +	< azar	kiyiz 'felt' +	< at 'horse' +	ömir 'life' +
yarïq 'light'	orta 'middle'	'quarrel, jaw'	etik 'boots';	m - {Red} + at	ömir 'life'
+(s)I	+(s)I	+DI {NN} +		'horse';	+ <i>GA</i> {Dat}.
{Poss.Sg3};	{Poss.Sg3};	awiz 'mouth';			

Table 4. Compounds in Noghay

5. Observations on compounding in the Aral-Caspian Kipchak branch

According to the structural characteristics, compounds can be formed in three ways: from two constituents with the third person possessive marker +(s)I suffix,⁴ from two bare constituents, and through reduplication. In this section the most cardinal question is in which case the linking element occurs in compounds. It might undoubtedly appear only in subordinate and attributive structures, mainly in the endocentric subgroups. However, taking a closer look, we find more regularities in the structures with linking elements. In the case of Kazakh, I accept partly van Hofwegen's argument (2014: 1–21), that the presence or the lack of the linking element depends on the characteristic of the non-head noun in noun–noun compounds. If the non-head position contains a noun which can fulfilan adjectival function (and is, thus "neutral") as well, the linking element is used, unlike in "nonneutral" nouns, where no linking element is ever used. In my opinion, only the second statement is completely right in the Kazakh language, because the usage of the linking element in the "neutral" noun–noun constructions is optional, as Table 5 demonstrates.

'neutral' noun-noun constructions	'non-neutral' noun-noun	
neutral noun-noun constructions	constructions	
balara ~ balarasï 'bee' < bal 'honey' + ara	qolžazba 'handwriting' < qol 'arm, hand' + žaz-	
'fly, bee' +(s)I {Poss.Sg3};	'to write' -MA {VN};	
tuwġan kün ~ tuwġan küni 'birthday' < tuw- 'to	külsawit 'ashtray' < kül 'ash' + sawit 'vessel,	
be born' $-GAn \{CV\} + k\ddot{u}n$ 'day, sun' $+(s)I$	vase, jar';	
{Poss.Sg3};		
tuwġan žeri ~ tuwġan žer 'birthplace' <	äwežay 'airport' < äwe 'air, sky' + žay	
tuw- 'to be born' -GAn {CV} + žer 'place'	'residence, accomodation';	
$+(s)I$ {Poss.Sg3};		

Table 5. Kazakh compounds

In Kirghiz, Karakalpak and Noghay there is no exact rule for the usage of the linking element. In my opinion, all of the subordinate and attributive endocentric

⁴ Hereinafter I adopt the concept Linking Element following Göksel and Haznder's proposal (2007).

constructions oirginally disposed of the linking element, and its optional usage or disappearence is a new tendency in these languages (See Table 6).

	Kirghiz	Karakalpak	Noghay
	but kiyim < but	ayaq kiyim < ayaq	<u>ayaq kiyimi</u> < ayaq
'shoes'	'shoes' + kiyim	'leg, foot' + kiyim	'leg, foot' + kiyim
	'dress';	'dress';	'dress';
	temir jol < temir	<u>temir žolï</u> < temir	temir yol < temir
'railway'	'iron' + jol 'road,	'iron' + žol 'road,	'iron' + yol 'road,
	way, path';	way, path';	way, path';
	alma j̃iġačï < alma	alma aġašï < alma	<u>alma terek</u> < alma
'apple tree'	'apple' + j̃igač 'tree'	'apple' + aġaš 'tree'	'apple' + terek 'tree'
	$+(s)X \{Poss.Sg3\};$	$+(s)I$ {Poss.Sg3};	$+(s)I$ {Poss.Sg3};

Table 6. Kirghiz, Karakalpak and Noghay compounds with(out) linking elements

The examples presented below demonstrate that in the Aral–Caspian Kipchak languages the linking element is used only in noun–noun or adjective–noun constructions, and only in subordinate and attributive compounds. Nevertheless, the linking element can be almost unexceptionally detected, when the originally Russian adjective plus noun compounds are translated word for word, as is presented in Table 7.

	Russian	Kazakh	Kirghiz	Karakalpak	Noghay
'nervous	nervnaja	nerv sistemasï	nerv sistemasï	nerv	nervlar
system'	sistema	nerv sistemasi	nerv sistemasi	sistemasï	sistemasï
		qant diabeti <	qant diabeti <	qant keseli <	seker diabeti <
		qant 'sugar' +	qant 'sugar' +	qant 'sugar'	seker 'sugar' +
'diabetes'	saharnyj	diabet	diabet	+ kesel	diabet
diabetes	diabet	'diabetes,	'diabetes,	'disease'	'diabetes,
		diabetic' +(s)I	diabetic' $+(s)I$	+(s)I	diabetic' +(s)I
		{Poss.Sg3};	{Poss.Sg3};	{Poss.Sg3};	{Poss.Sg3}.

Table 7. Loan translations of Russian compounds in Aral–Caspian Kipchak languages

6. Reduplication

As was seen in Tables 1, 2, 3, and 4, coordinative compounds are a very special group in the Aral–Caspian Kipchak languages from the point of view of word formation. A great majority of coordinative compounds are formed through reduplication. Even though onlytotal and partial reduplication (for more on the types of reduplication, see Wiltshire and Marantz 2000: 557–562) belong to compounding, they should be analysed withbinomes. The reason for this method is that the meaning of these compound categories are very similar to each other. These phenomena are very productive in the Kipchak languages: they can form collective nouns, nouns with special meanings on the basis of the two consituents, and they can express intensification as well. Table 8 summarizes the various forms of coordinative compounds.

Total	Partial	Synonym	Hyponym
reduplication	reduplication	compounds	compounds
Kazakh	Kazakh	Kazakh	Kazakh
'continually, more and more' < bar-'to go' - A {CV}; dara-dara 'singly' < dara 'only, just'; žal-žal 'stack, salient, avalanche' < žal 'mane, swell';	nan-pan 'bread and other bakery products' < nan 'bread'; tars-turs 'clattering noise' < tars 'manner, way, method'; ühilep-ahïlap 'complaining and suffering' < ühile- 'to huff' -Ip {CV};	ämir-qudiret 'power, strength' < ämir 'command, order, permit' + qudiret 'strength, power'; dabir-dübir 'shouting' < dabir 'noise' + dübir 'noise'; žer-düniye 'surface, the whole world' < žer 'place' + düniye 'world';	as-su 'food' < as 'food' + su 'water'; äke-šeše 'parents' < äke 'father' + šeše 'mother'; dos-dŭšpan 'everybody' < dos 'friend' + dušpan 'enemy';

⁵ According to the definition "the term reduplication is applied to a type of word formation (in the broad sense, including both derivation and inflection) in which the phonological form of an affix is determined in whole or in part by the phonological form of the base to which it attaches" (Wiltshire and Marantz 2000: 557).

⁶ Binomes (or twin words) can be divided into two subgroups on the basis of the constituents and the meaning of the compound: synonym compounds (hendiadys) and hyponym compounds (Johanson 1998: 50).

Kirghiz	Kirghiz	Kirghiz	Kirghiz
bāz-bāz 'sometimes' < bāz 'some, a little'; boz-boz 'dark brown' < boz 'grey'; jeke-jeke 'singly, severally' < jeke 'individual, private'; Karakalpak	kitep mitep ~ kitep sitep 'books' < kitep 'book'; kök-sök 'vegetables' < kök 'blue, vegetable'; mayda-čayda 'fiddle- faddle' < mayda 'small'; Karakalpak	aġa-ini 'brothers' < aġa 'brother, elder brother' + ini 'younger brother'; aqe-üke/aqe-ükö 'sisters' < aqe 'mother' + üke/ükö 'sister'; köl-dayra 'lakes and seas, big lake' < köl 'lake' + dayra 'sea, lake'; Karakalpak	### Airgniz ### ališ-beriš 'shopping, ### trade' < al- 'to buy, ### take' -lš+ {VN} + ### ber- 'to give' -lš ### {VN}; ### aziq-tülük 'food- ### stuff' < aziq 'food, ### feeding' + tülük ### 'food'; ### keldi-ketti 'visit' < ### keldi-ketti 'visit' ### keldi-ketti 'visit' < ### keldi-ketti 'visit' </p ### keldi-ketti 'visit'
mezgil-mezgil 'sometimes, once in a while' < mezgil 'time, season'; **sonday-sonday 'either way, anyway' < **sonday 'like that'; **töbe-töbe 'hilly area' < töbe 'thill';	adam-padam 'people, troops' < adam 'human, man'; etik-petik 'boots and other footwears' < etik 'boots'; sadaqa-padaqa 'burial feast' < sadaqa 'victim, commemoration';	**Arakalpak ot-žem 'forage, feed' < ot 'grass' + žem	**ATAKAIPAK **ata-baba/ata-ana 'grandparents' < ata 'father' + ana 'mother'; **baris-kelis 'behaviour, attitude' < bar- 'to go' -Is {VN} + kel- 'to come' -Is {VN}; **kelim-ketim 'guests' < kel- 'to come' -Im {CV} + ket- 'to go' -Im {CV};
Noghay ömir-ömirge 'forever' < ömir 'life' +GA {Dative}; üzik-üzik 'staccato, jerky' < üzik 'snatch, wiff'; zaman-zamanda 'sometimes' < zamam 'time' +DA {Loc}.	Noghay birem—sirem 'one by one' < birem 'once'; köylek—möylek 'all kind of shirts' < köylek 'shirt'; qasqir—masqir 'wolves' < qasqir 'wolf'.	Noghay bäle-qaza/qaza bale 'misfortune, trouble' < bäle 'misfortune'; qaza 'misfortune'; xabar-xäter 'news' < xabar 'news' + xäter 'news'; yaw-dušpan 'enemies' < yaw 'enemy' + dušpan 'enemy'.	Noghay bügün-erten 'fast, tight' < bügün 'today' + erten 'tomorrow'; mezgilsiz-mekansiz 'unsuitable, inadequate' < mezgil 'season' +sIz {NN/Adj.} + mekan 'place' +sIz {NN/Adj.}; yetim-yesir 'orphans' < yetim 'orphan' + yesir 'oprhan'.

Table 8. Types of coordinative compounds in Aral–Caspian Kipchak languages

Taking a stock of the examples, some characteristics can be observed about their function and the usage. Compounds with total reduplication are used to represent idiomatic expressions or adverbs. They can establish collective nouns replacing suffixes, like the abstracness suffix +LIK (Johanson 1998: 36) and the suffixes +KIl expressing shades of colours (Erdal 1991: 98–99). Similarly to all Turkic languages, Kipchak languages form echo words by partial reduplication. These compounds are translated as 'a thing etcetera', 'a thing and the like', and 'something and similar things'. In this case, the partial reduplicated word has an initial labial m-/b-/p- consonant (Johanson 1998: 50). However, it might be sometimes initial s-, or only vocal changes in the reduplicated form.

Synonym compounds express essentialy the plural form or represent a new concept with a meaning very close to the constituents. The most interesting group of coordinate compounds is that of hyponym compounds. Generally, it displays collectivity with antonyms, but it can semantically the plural form or word a new meaning, which is deduced from the basic meaning of the two constituents.

7. Verbs in compounding

In Turkic languages, there are two possibilities to form verbs: by suffixation (a synthetic method) or compounding (an analytical method). Analytical verb formation is very productive in most Turkic languages (Johanson 1998: 42). Verbs which serve as constituents of compounds can form compounds⁸ with different parts of speech in the Aral–Caspian Kipchak languages: [Verb + Verb]Verb⁹, [Verb + Verb]Noun, [Verb + Verb]Adverb, [Noun/Adjective + Verb]Verb. Verb + verb constructions which create nouns or adverbs are very rare.

The [Noun/Adjective + Verb]Verb compounds generally create idiomatic expressions or verbs with the meaning 'to do something'. In this case, the second constituent has the meaning 'to do'. (See Table 9.)

⁷ About the process of reduplication, see Göksel–Kerslake (2005: 90–93). This system is very close to Aral–Caspian Kipchak reduplication.

⁸On verb formation in Aral-Caspian Kipchak, see Kirchner (1998a: 325–325), Csató and Karakoç (1998: 338–339), and Kirchner (1998b: 349–351).

⁹ In this way of marking the elements in the brackets denote the word class of the constituents, while the third component (subscript) provides the class of the formed compound.

	Idiomatic expressions	[Noun/Adjective + Verb] _{Verb}
Kazakh	aŋ al- 'to hunt, catch' < aŋ 'hunting' + al- 'to buy, take'; wäde ber- 'promise' < wade 'to swear, promise' + ber- 'to give';	žumïs iste– 'to work' < žumïs 'work, labour' + iste– 'to do'; sayaχat qīl– 'to wander' < sayaχat 'voyage' + qīl– 'to do';
Kirghiz	tamaq ič- 'to meal' < tamaq 'food' + ič- 'to drink'; tameki tart- 'to smoke' < tameki 'tobacco' + tart- 'to pull';	ada qīl- 'to finish' < ada 'end' + qīl- 'to do'; operaciya jasa- 'to operate' < operaciya 'operation' + jasa- 'to do';
Karakalpak	aytip $\ddot{o}t$ —'to mention' < ayt—'to say' — $Ip \{CV\} + \ddot{o}t$ —'to say'; dem al—'to have a rest' < dem 'respiration' + al—'to buy, take';	duwa et- 'to pray' < duwa 'pray'+ et- 'to do'; buyrïq qïl- 'to act, to dispose' < buyrïq 'command, order' + qïl- 'to do';
Noghay	bala tap- 'to give birth' < bala 'child' + tap- 'to find'; ötirik söyle- 'to lie' < ötirik 'lie' + söyle- 'to say';	habar et- 'to inform, to post' < habar 'news' + et- 'to do'; süret yasa- 'to paint' < süret 'picture, painting' + yasa- 'to do'.

Table 9. Verbal compounds in Aral-Caspian Kipchak languages

The Aral–Caspian Kipchak languages have a special verbal compound category, when the [Verb + Verb]Verb constructions form a new meaning, which originally the two constituents did not have. Their construction is the same asthat of "auxiliary compounds": the first contituent is conjoined to the second by a converbial form, but they can be contracted.

	Basic meaning	Word-for-word translation
Kazakh	alïp bar—> apar— 'to carry';	'to take and go'
Kirghiz	alip ket—> apket— 'to carry away';	'to take and go'
Karakalpak	<i>alïp kel−> äkel-</i> 'to bring'	'to take and come'
Noghay	alip ber-> äper- 'to deliver, to put in'	'to take and give'

Table 10. Verbal compounds with a new meaning

The most interesting group of the Aral–Caspian compounds is that of the [Verb + Verb]Noun/Adverb structures. These compounds are formed unexceptionally by the conjoining of two finite verbal forms, which express idiomatically a noun or an adverb.

Kazakh	bolar-bolmas 'a little bit, a bit' < bol- 'to be' -Ar {Aor.Sg3} + bol- 'to be'
	+mAs {Aor.Neg.Sg3}
Vinahiz	keldi–ketti 'visit, observation' < kel– 'to come'-DI {Past.Sg3} + ket–'to
Kirghiz	go' -DI {Past.Sg3}
Karakalpak	$bolar$ - $bolmas$ 'hardly, barely' $< bol$ - 'to be' - Ar {Aor.Sg3} + bol - 'to be'
	$+mAs$ {Aor.Neg.Sg3}
Noghay	bolsa bolar 'possibly, maybe' < bol- 'to be'-sA {Cond.Sg3} + bol- 'to be'
	-Ar {Aor.Sg3}

Table 11. [Verb + Verb]_{Noun/Adverb} compound structures

On the basis of the MorboComp classification of compounds (Bisetto and Scalise 2005:321–328), the verbal constructions must be considered as coordinatives from the semantic point of view.

8. Headedness

As was highlighted above, the headedness (or more exactly, the presence or the absence of the head) is one of the criteria for the classification of compounds. Göksel and Haznedar (2007) discuss some characteristics of the headedness of the Turkish, which shows a lot of similarities with the Aral–Caspian Kipchak languages. On the basis of the collected corpus and the presented examples in this study, the compounds can be divided into three classes in these languages: one–headed compounds, double–headed compounds, and headless compounds. ¹⁰ The one-headed compounds are represented in the endocentric class of subordinate and attributive groups, and they are typically right-headed. Nevertheless, there are left-headed structures as well, although they constitute an unusual phenomenon in the Kipchak languages. Left-headedness occurs in the case of the izafet structures, which remains as the heritage of the former Chagathay literature languages. ¹¹ This

 $^{^{10}}$ All of the exocentric compounds are considered to be headless.

¹¹ The Aral–Caspian Kipchak people used earlier as written languages the Chaghatay tradition (Boeschoten and Vandamme 1998: 167–169).

construcion was copied from Persian (Boeschoten and Vandamme 1998: 174–175). ¹² Izafet structures are not used in word formation. These compounds are idiomatic, like the name of the Quran: Kazakh *qurani kärim*; Kirghiz *qurani qarim*; Karakalpak *qurani kärim* or Noghay *qurani kerim*.

Another special one-headed construction can be detected in the Aral–Caspian Kipchak languages when the head relation changes between the constituents. So, in this sense, the head might be optional. This kind of constructions occurs only in the attributive group. They can optionally substitute adenominal suffix, which can form adjectives (Baskakov 1958: 810; Baskakov 1963: 511; Kirchner 1998a: 322; Kirchner 1998b: 347).

Kazakh	Kirghiz	Karakalpak	Noghay
'generous, propitious'	'crazy, insane'	'honest, true'	'pregnant'
qolï ašïq < qol 'arm'	<u>bašī</u> del < baš 'head' +(s)X {Poss.Sg3} + del 'fool'; del <u>baštū</u> < del 'fool' + baš 'head' +LŪ {NN/Adj.};	niyeti χaq < niyet 'intention' +(s)I {Poss.Sg3} + χaq 'true, correct'; χαq niyetli < χaq 'true, correct' + niyet 'intention' +LI {NN/Adj.};	ayaġï awïr < ayaq 'leg'+(s)I {Poss.Sg3} + awïr 'heavy'; awïr ayaqlï < awïr 'heavy' + ayaq 'leg' +LI {NN/Adj.}.

Table 12. Compounds with 'optional head' in Aral-Caspian Kipchak

From the perspective of the semantic field, these optionally headed compounds appear only as such attributive constructions, which designate internal and external properties, so as a part of speech they must be considered to be adjectives. However, the linking element can be changed depending on which person it should mark. Therefore, the linking element is a part of the possessive paradigm in the optionally headed constructions. This can be expressed by nominal inflection as well, when the right-headed construction is used with the adjectival suffix. (See the example in Kazakh in Table 13.)

 $^{^{12}}$ In this case the Persian -i linking element is attached to the first constituent of the construction, making it the head.

(Meniŋ) niyet \underline{im} aq \rightarrow niyet +(I)m {Poss.Sg1}	cf. (Men) aq niyettimin 'I am generous'
(Bizdiŋ) niyetimiz $aq \rightarrow niyet + (I)mIz$ {Poss.Pl1}	cf. (Biz) aq niyett <u>imiz</u> 'We are generous'
(Olardin) niyeti aq 'their intention is	cf. (Olar) aq niyet <u>ti</u> ¹³ 'They are
good' $\rightarrow niyet + (s)I \{ Poss.Pl3 \}$	generous'

Table 13. Parts of the paradigm of the possessive and personal markers

The topic of the double-headed (or two headed) compounds has already been partially touched upon in connection with reduplication. Categorically, the double-headed contructions constitute a group of endocentric coordinate compounds. From the semantic point of view, they create collective nouns (see Tables 1, 2, 3, and 4) or new words, which are related to the basic meaning of the two constituents (generally binomes). And as has been mentioned above, morphologically, they can replace suffixes, like the abstractness suffix +LIK and the plural marker +LAr (Johanson 1998: 36; 38).

Kazakh	Kirghiz	Karakalpak	Noghay
as–su ~ ast <u>ïq</u>	adïr–čïbïr ~	aġayïn–tuwġan ~	aġalï–inili ~
'nutrition, food'	adïrdū <u>luq</u> 'hills,	aġayïn <u>lar</u> ; tuwġan <u>lar</u>	qardašlar 'brothers'
< <i>as</i> 'food' + <i>su</i>	hilly region' < adir	'relatives' < aġayïn	< aġa 'brother, elder
'water'	'hill' + <i>čïbïr</i>	'relative' + tuw- 'to	brother' + DI
	'mountain, mountain	be born' – <i>GAn</i> +	${NN/Adj.} + ini$
	range'; adïr 'hill'	{CV}; aġayïn	'younger brother'
	+DX {NN/Adj.}	'relative' + <i>LAr</i>	+DI {NN/Adj.};
	+LXK {NN}	{Plur}; tuw- 'to be	qardaš 'brother'
		born' – <i>GAn</i> + {CV}	+LAr {Plur}
		+LAr {Plur}	

Table 14. Two-headed compounds

¹³ There is no difference in the paradigm of the possessive and the personal markers between the singular and the plural third person forms (Kirchner 1998a: 324–326).

9. Suffixation or compounding?

The special function of compounds in word formation is that they can replace suffixes. This function has already come under consideration many times. However, there are some special constituents in compounds which originally have an autonomous usage, but as a part of a compound they behave as suffixes. The most conspicuous in this case is that the boundary between suffixation and compounding is not clear at all. A list of these words is given with a short explanation in the Aral–Caspian Kipchak languages:

(1) Kazakh χana 'residence, adress, room'; Kirghiz qana 'place, room'; Karakalpak χana 'place, house'; Noghay – ← Iranian: cf. Persian khāna 'house, dwelling, tent' (Steingass 1996: 444).

The word is undoubtedly of Persian origin. Its usage is very frequent except in Noghay. It is found as a lexical item as well, but in compounds it appears like a suffix which forms places, institutions and all kinds of buildings which are connected to a special activity. In Noghay, these sort of words are mostly expressed by Russian borrowings.

	Kazakh	Kirghiz	Karakalpak	Noghay
'hospital'	awrwχana < awrw 'ill, disease'	ōruqana < ōru 'ill, disease'	keselxana < kesel 'ill, disease'	gospital'
'pharmacy'	däriχana < däri 'medicine'	darïqana < darï 'medicine'	däriχana < däri 'medicine'	apteka
'dormitory'	žataqχana < žat– 'to lie' –AK {VN}	<i>jataqana < jat</i> - 'to lie' – <i>XK</i> {VN}	žataqχana < žat– 'to lie' –AK {VN}	obščežitie
'lavatory, toilet'	äžetyana/däretyana < äžet 'need'/däret'stool'	ajatqana/dāratqana < ajat 'need'/dārat 'stool'	häžžetyana/ däretyana < häžžet 'need'/däret 'stool'	äžetqana < äžet 'need'

Table 15. Semi-affixes in Aral–Caspian Kipchak

(2) Kazakh *qora* 'court, courtyard'; Kirghiz *qorō* 'court, courtyard'; Karakalpak *qora* 'court, courtyard'; Noghay – ~ Old Turkic *qorïġ* 'an enclosure, enclosed area' (Clauson 1972: 652b).

The usage of this word as a suffix is very similar to the former example. It is found only in Kazakh and Karakalpak as a method of word formation. It forms only words which are related to agriculture and animal husbandry and include an enclosed place. Kirghiz has the semi-affix -qana in all but one of the forms, meanwhile Noghay uses other suffixes or the word avla 'court, courtyard'.

	Kazakh	Kirghiz	Karakalpak	Noghay
'animal farm'	malqora < mal	malqana < mal	malqora < mal	mal avla < mal
	'animal, wealth'	'animal,	'animal, wealth'	'animal, wealth'
animai iarm	+ qora 'court,	wealth' + qana	+ qora 'court,	+ avla 'court,
	courtyard'	'place, room'	courtyard'	courtyard'
'stable'	atqora < at	atqana < at	atxana < at	atlïq < at
	'horse' + qora	'horse' + qana	'horse' + χana	'horse' +LIK
	'court,	'place, room'	'place, room'	{NN}
	courtyard'			

Table 16. Semi-affixes of Turkic origin

Kazakhögiz qora'stable for oxen'cf.Kirghizqoy qorō'manger'šošqa qora'pigpen'cf.Kirghizčočqoqana'pigpen'qoyanqora'rabbithutch'

Karakalpak jemqora 'manger'

otqora 'loft'

qoyanqora 'rabbithutch'

(3) Kazakh *nama* 'letter, writing'; Kirghiz *nāma* 'holy book, scripture'; Karakalpak − ; Noghay − ← Iranian: cf. Persian *nāma* 'a writing, letter, epistle' (Steingass 1998: 1380).

The originally Persian word is used as an affix actively only in Kazakh. In Karakalpak, there are only few examples, but it is not detected in Kirghiz and Noghay. Generally as a suffix it forms words related to written documents and papers (Kazakh *azanama* 'obituary'; ġarīšnama 'cosmogony'; tariҳnama 'historiography').

	Kazakh	Kirghiz	Karakalpak	Noghay
	žïlnama < žïl	jĭlbayan < jĭl	žïlnama < žïl	letopis'
'yearbook'	'year'	'year' + bayan	'year'	← Russian
		'short story,		
		story'		
	šartnama <	kelišim/kontrakt	šartnama <	kontrakt
'contract'	šart		šart	← Russian
	'condition'		'condition'	

Table 17. The usage of Persian *nāma* in Aral–Caspian languages

(4) Kazakh qumar 'desire, request, will'; Kirghiz qumar 'passion, desire'; Karakalpak qumar 'desire, passion'; Noghay qumar 'habit, request' ← Iranian: cf. Persian khumār 'the effect of love, of drowsiness, of drinking' (Steingass 1998: 474).

This word was borrowed from Persian in all of the Aral–Caspian languages, but it is plays a role in word formation only in the Kazakh language. Additionally, it can replace three adjectival suffixes, namely, the intensifying +GOy; +šIl and +šAy (Balakaev, Baskakov and Kenesbaev 1962: 140; 185; 203) and nominal suffix +qor (Balakaev, Baskakov and Kenesbaev 1962: 140):

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Kazakh
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aqšaqumar < aq 'white' + qumar 'desire, request, will';
'rapacious':
               aq\check{s}a\check{s}il < aq 'white' +\check{s}Il {NN/Adj.};
'suitor':
                arizgumar < ariz 'wish, desire' + qumar 'desire, request, will';
                arizgoy < ariz 'wish, desire' +GOy {NN/Adj.};
'a person who likes jokes':
               äzilgumar < äzil 'joke, jest' + gumar 'desire, request, will';
                äzilšil < äzil 'joke, jest' +šIl {NN/Adj.};
                \ddot{a}zilgoy < \ddot{a}zil 'joke, jest' +GOy {NN/Adj.};
                \ddot{a}zil\check{s}e\eta < \ddot{a}zil 'joke, jest' +\check{s}A\eta {NN/Adj.};
'verbose':
               änimegumar < änime 'conversation, story' + gumar 'desire, request';
                \ddot{a}\eta imegoy < \ddot{a}\eta ime' conversation, story' +GOy {NN/Adj.};
'vainness, vanity':
               mansapqumar < mansap 'place, job, career' + qumar 'desire, request';
                mansapqor < mansap 'place, job, career' +qor {NN/Adj.};
                mansap \ddot{s}\ddot{i} < mansap 'place, job, career' + \ddot{s}Il \{NN/Adj.\}.
```

Kazakh and Karakalpak show almost the system from the perspective of the semi-affixes, and Kirghiz is partially similar too, but Noghay has a totally different system, which might be explained by the spatial distance from the other three languages.

10. Conclusion

Through the analysis of the compounds in the Aral—Caspian Kipchak languages, it becomes evident that this type of word formation is as productive as suffixation. These languages represent a very wide and varied system regarding the structural and semantic characteristics of compounds. Therefore, it is almost impossible to suggest a classification which could not separate well the compounds into groups without overlaps. From the semantic point of view, the compounds can replace in a lot of cases nominal and adjectival suffixes. For further research, it would be useful to go into further detail regarding the topic of the common characteristics of compounding and suffixation.

Abbreviations

Aor	Aorist
COND	Conditional
CV	Converb
DAT	Dative
Loc	Locative

NN Denominal noun suffix

NN/ADJ. Denominal noun suffix forming adjectives

Past tense, third person singular

PL Plural

Poss Possessive, third person singular

RED Reduplication

VN Deverbal noun suffix

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