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Titel: Reciprocal constructions of Turkic languages in the typological perspective

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Reciprocal constructions of Turkic languages in the typological perspective

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In this paper, on the basis of the previously published papers on reciprocals in Karachay-Balkar, Yakut and Kirghiz (*Turkic Languages* 6, 19-80; 7, 30-104; 7, 181-234), and also other publications on reciprocals, Turkic languages are compared according to the range of polysemy of reciprocal markers as well as the productivity of their different meanings. Typological parallels of these sets of polysemy or the absence of such parallels are established. The specific nature of this polysemy and its unique marking as part of a five-member voice system is brought out cross-linguistically. For discussion, eight issues are selected. Naturally, the characteristics cited below are not exhaustive, and the paper is to a certain degree fragmentary.

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1. Two types of expressing the reciprocal meaning in Turkic languages

1.1. Reciprocal forms: verbal and pronominal reciprocals

As is known, in all the Turkic languages, there are two main reciprocal markers, suffixal (see (1) and (8)) and pronominal (see (2), (3), and (5)) and thus two types of reciprocals, verbal, marked with suffixes, and pronominal.¹ They enter into two main types of reciprocals distinguished cross-linguistically, where verbal reciprocals can also be marked with other types of affixes (prefixes, infixes, circumfixes), clitics, root reduplication, grammaticalized doubling of a clause, etc.

Suffixal markers (-*ış* or -*is*) are polysemous. Positional variants for the consonant are -*s/-h-* in Yakut, -*š/-z/-č* in Khakas, -*š/-ž/-č* in Tuvan, and -*š/-š'-* in Chuvash. In Yakut, sometimes a reduplicated marker -*sīs* with the same meaning(s) is used. The

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vowel preceding the consonant is subject to vowel harmony or it can be absent under certain conditions. The suffixal marker, though varying phonemically, is genetically the same in all the Turkic languages, cf. Karachay-Balkar (1a) and Yakut (1b) respectively:

- (1) a. *tanı-* ‘to know’ → *tanı-ş-* ‘to get acquainted with each other’
 b. *taptaa-* ‘to love’ → *tapta-s-* ‘to love each other’.

Pronominal reciprocal markers are monosemous. They are marked for case and person (the latter is indicated by the reflexive-possessive marker, e.g. *-leri-* in (2a), *-i* in (2b), etc.). In contrast to suffixal markers, they are of at least two varieties. In this paper, a limited number of Turkic languages are taken into account. As there are about 40 living Turkic languages (see, for instance, Tenišev 1997), there may be other types of reciprocal pronouns.

Type one. This type of reciprocal pronouns is derived from reflexive pronouns by means of root reduplication and is typical of North-Eastern Turkic languages. This variety has two subtypes, illustrated below by Yakut and Tuvan 3rd person reflexive and reciprocal pronouns (*-leri-n* = REFL.POSS.3PL-ACC; *tar-i-n* = PL-REFL.POSS.3-ACC; all the accusative forms for the three persons of both reciprocal pronouns are given in (3)):

- (2) a. Yakut *beye-leri-n* ‘(they) themselves’ → *beye-beye-leri-n* ‘(they) each other’.
 b. Tuvan *bot-tar-i-n* ‘(they) themselves’ → *bot-bot-tar-i-n* ‘(they) each other.’

The other languages of this area display reciprocal pronouns either of the first subtype (see (2c, d)), or the second subtype (see (2e, f)), the variation being possible even among the dialects of one language (Shor-1 is a dialect spoken along the River Kondoma and Shor-2 on the River Mrassu; Tenišev 2002: 540); cf. (*-lar-*, *-tar-* = PL; *-i-* = REFL.POSS.3; *-n* = ACC):

- c. Altai *boy-i-n* ‘(they) themselves’ → *boy-i-boy-i-n* ‘(they) each other’
 d. Shor-1 *poy-lar-i-n* ‘(they) themselves’ → *poy-poy-lar-i-n* ‘(they) each other’
 e. Shor-2 *pos-tar-i-n* ‘(they) themselves’ → *pos-pos-tar-i-n* ‘(they) each other’
 f. Khakas *pos-tar-i-n* ‘(they) themselves’ → *pos-pos-tar-i-n* ‘(they) each other.’

In Khakas, alongside the pronoun (2f) the adverb *udur-tödir* <entgegenzurück> ‘each [opposite] other’ is also used as a reciprocalizer, without the support of other reciprocal markers (Letučij, forthcoming). In this respect it seems to be the only adverb in the Turkic languages that functions as a reciprocal marker on its own (however, it requires additional study). For instance, the respective adverb *udur-dedir* in Tuvan cannot function as a reciprocalizer on its own (Kuular, forthcoming).

In the Altai language, a marker of the second type like *biri-n biri* in (5), i.e. the type of marker uncharacteristic of this area, is also attested; cf. (*-si* = REFL.POSS.3; *-n* = ACC):

h. *pir-si pir-si-n* ‘each other’, lit. ‘one-their one-their-ACC’ (Čankov 1961: 202).

Here are the forms of all three persons of reciprocal pronouns in the accusative case for two languages (*-biti-*, *-ivīs-* = REFL.POSS.1.PL; *-yiti-*, *iŋar-* = REFL. POSS. 2.PL; *-n*, *-tī*, *-nī* = ACC):

(3)	Yakut	Tuvan
a. 1PL	<i>beye-beye-biti-n</i>	<i>bot-bot-tar-ivīs-tī</i> ‘(we) each other’
b. 2PL	<i>beye-beye-yiti-n</i>	<i>bot-bot-tar-iŋar-nī</i> ‘(you) each other.’
c. 3PL	<i>beye-beye-leri-n</i>	<i>bot-bot-tar-ī-n</i> ‘(they) each other.’

The Yakut reflexive and reciprocal pronouns are Mongolic borrowings resulting from long areal contact (and borrowed together with the noun *beye* ‘man’, ‘body’ from which they are derived). As regards Tuvan, it uses the Turkic root *bot* ‘body’, and copies the Mongolic pattern of reciprocal formation; cf. Buryat (*Ø-ee* = ACC-REFL.POSS):

(4) *bey-Ø-ee* ‘themselves’ → *beye-bey-Ø-ee* ‘each other.’

Type two. In this type reflexive and reciprocal pronouns have different roots. In other than North-Eastern Turkic languages, the reciprocal pronouns are a reduplication of the numeral *bir* ‘one’. As for the reflexive pronouns, they have at least four roots across these languages.

This type of reciprocal pronouns was registered as early as in the 11th century, in the works of Mahmūd al-Kāšgarī.

Examples of Karachay-Balkar, Kirghiz, Turkish and Chuvash reflexive and reciprocal pronouns respectively (*-leri-*, *-dör-*, *-lerin-*, *-se-* = REFL.POSS.PL.3; *-n*, *-ün*, *-i*, *-ne* = ACC):

(5)	a. <i>kes-leri-n</i> ‘(they) themselves’	→ <i>biri-n biri</i> ‘(they) each other’
	b. <i>öz-dör-ün</i> ‘(they) themselves’	→ <i>biri-n biri</i> ‘(they) each other’
	c. <i>kendi-lerin-i</i> ‘(they) themselves’	→ <i>bir-birin-i</i> ‘(they) each other’
	d. <i>hăy-se-ne</i> ‘(they) themselves’	→ <i>pěr-pěr-ne</i> ‘(they) each other.’

If we consider both types of reflexive and reciprocal pronouns, we see that across the Turkic languages there are at least six reflexive pronouns derived from different roots and at least three reciprocal pronouns with different roots as well. The causes of such variety are unknown.

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Both the first and second types of the reciprocal pronouns described here are widely represented in the world’s languages. Examples of the first pattern from Lezghian (Haspelmath 1993: 55) and Twi (Boadi 1975: 55) respectively:

- (6) a. *čeb* ‘(one)self’ → *čpi-čeb* ‘each other’
 b. *hō* ‘(one)self’ → *hō hō* ‘each other.’

The second type of reciprocal pronouns, i.e. the type not derived from reflexive pronouns, is represented by two-member combinations of words meaning ‘one’, ‘person’, ‘(an)other’, etc. Compare Malayalam (Jayaseelan 2000: 119), English, Russian and Latvian examples respectively:

- (7) a. *taŋaL* ‘themselves’ — *oraal ... oraal* lit. ‘one person ... one person’
 b. *oneself, myself ... themselves* — *each other*
 c. *sebja* ‘oneself, myself ...’ — *drug druga* lit. ‘another another(ACC)’
 sebja ‘oneself’ — *odin odnogo* lit. ‘one one(ACC)’
 d. *sevi* ‘oneself’ — *cits citu* ‘another another(ACC)’, etc.

All the reciprocal pronouns cited above have a two-component structure, which iconically reflects the reciprocal situation with two participants (or two groups of participants) and their respective actions.

1.2. Relationship between verbal and pronominal reciprocals

With respect to the means of expressing reciprocity, the following exposition shows the place of the Turkic languages among the world languages. As mentioned, cross-linguistically, languages can employ pronominal and/or verbal reciprocal markers. With respect to the use of these types of devices, the following types of languages can be distinguished:

- a) languages employing reciprocal pronouns only, as is the case in Basque, English, Finnish, Lezghian, Georgian, etc.;
- b) languages employing only verbal reciprocal markers, e.g. Yukaghir, Quechua, Ainu, Mundari, Amele, etc.;
- c) languages employing both types of devices, but in this case the latter can be used
 - i) only separately (German, Lithuanian, Polish, etc.) or
 - ii) either separately or simultaneously with reciprocal pronouns (Chukchi, Japanese, Mongolic, etc.).

The Turkic languages are of type (c.ii). Respective Yakut illustrations: (8) where reciprocity is expressed by the suffix alone (*-s* > *-h* in intervocalic position), (9) with both markers used simultaneously and (10) with reciprocity expressed by the reciprocal pronoun alone:

- (8) *Īhikmī-h-an* *kebis-ti-ler* (Kīīs Debeliye 1993: 222)
 let.go-REC-CONV AUX-PAST-3.PL
 ‘(They) let each other go.’

- (9) *Beye-beye-leri-n kör-s-ön tur-but-tar-a ...*
 each-other-3.POSS-ACC look-REC-CONV AUX-PAST-PL-CONV
 ‘(They) having looked at each other ...’ (ibid., p. 132).
- (10) *Beye-beye-leri-n xolun-nar-al-lar* (Xaritonov 1963: 35)
 each-other-3.POSS-ACC run.down-PL-PRES-3.PL
 ‘They are running each other down.’

Across Turkic languages, suffixal and pronominal reciprocal markers differ in their usage.

For instance, in Yakut and Tuvan, the main reciprocal marker is the suffix, the reciprocal pronoun being used much less frequently and, often, pleonastically with a suffixed reciprocal. Thus, for instance, (9) is the only case in the 6,000 lines of the epic poem “Kīis Debeliye”, and, characteristically, the verb also carries the reciprocal suffix. In another Yakut epic poem entitled “Modun Er Soyotox” (The Powerful Er Sogotox”; over 6,400 lines), the reciprocal pronoun does not occur at all. It is also indicative that in the Russian translation of this same epic on p. 217 there are eight pronominal reciprocals with *drug druga* ‘each other’ corresponding to the suffixed reciprocals of the original. A similar state of things is observed in Tuvan. Thus, in two Tuvan heroic epics (“Hunan-Kara”) and “Boktus-Kiriš, Bora-Šeelej” (about 10,500 lines) the reciprocal pronoun occurs only once. Here is this sentence:

- (11) *Olar-bile ol bügü-nü töögü-ž-üp, čugaala-ž-ip,*
 they-with s/he all-ACC tell-REC-CONV talk-REC-CONV
bot-bot-tar-i-n kaya, kanča-p,
 each-other-PL-3.POSS-ACC where/when what.to.do-CONV
tip-č-ip alir-in dugurž-up...
 find-REC-CONV AUX-CONV agree-CONV
 ‘She discussed everything, talked it over with them. Having come to an agreement where and when they would meet.’

A similar situation is observed in the Kirghiz heroic epics. Thus, for instance, in “Manas” (book 4, 1995, 10-366) in more than 14,500 lines there are only three occurrences of the reciprocal pronoun:

- (12) a. *bir biri-nen sura-š-ip ...*
 one one-ABL ask.questions-REC-CONV
 ‘asking each other questions’ (ibid., p. 170)
- b. *biri-n biri kara-š-ip...*
 one-ACC one look.at-REC-CONV
 lit. ‘exchanging glances between themselves’ (ibid., p. 175)
- c. *biri-n biri kör-ö al-ba-y...*
 one-ACC one see-CONV AUX-NEG-CONV
 ‘(people) could not see each other [in the smoke]’ (ibid., p. 244).

Analogous combinations of pronominal and suffixed reciprocals are mentioned in the works of Mahmūd al-Kāšgarī (cited from Nigmatov 1973: 51):

- d. *olar ikki bir bir-ig suv-qa batr-uš-dī* (II. 236)
 they two each other-ACC water-DAT dip-REC-PAST.3
 ‘They both dipped each other into the water.’

Alongside the differences in the frequency of pronominal and verbal reciprocals, there is a problem of choice between the two markers, and we ought to bear in mind the possibility of both markers being used pleonastically (see (9) above and also *bot-bot-tar-i-n ... tīp-č-īp* ‘to meet’, lit. ‘to find each other each other’ in (11)), and also those cases where one of the markers is possible or preferable (see (a) and (b)) or their joint usage changes the meaning (see (c)). The following illustrates the main cases (this issue requires special research).

(a) A suffixed reciprocal is preferable or is used exclusively. Thus, for instance, in Kirghiz the meaning ‘to kiss (each other)’ is expressed, as a rule, by a suffixed reciprocal (13a). A pronominal reciprocal (13b) is clear in meaning, but it is not used.

- (13) a. *ōb-ūš-* ‘to kiss (each other)’
 b. *biri-n biri ōp-* ‘to kiss each other.’

(b) A pronominal reciprocal is preferable or it alone is possible. For instance, in the meaning ‘to deceive each other’ the pronominal reciprocal (14a) is preferable, and in the meaning ‘to hate each other’ the pronominal reciprocal (14b) is possible only.

- (14) a. *biri-n biri alda-* ‘to deceive each other’
 b. *biri-n biri žek kör-* ‘to hate each other’ (*žek kör-* ‘to hate’, lit. hatred look)

(c) When used simultaneously, the markers express different meanings; this happens when the reciprocal pronoun is attached to a verbal derivative with the assistive meaning; cf.:

- (15) a. *žiy-na-* ‘to gather something’
 → b. *žiy-na-š-* ‘to help someone to gather something’
 → c. *biri biri-ne(DAT) žiy-na-š-* ‘to help each other gather something’ (T. Abdiev, p.c.)

It should be noted that the differences in the frequency of usage between pronominal and verbal reciprocals are also observed in many languages unrelated to Turkic. For instance, in colloquial German, verbal reciprocals of the type *sich lieben* ‘to love each other’ are prevalent, while pronominal reciprocals like *einander lieben* are more typical of written German and sound bookish, lofty and solemn in colloquial speech (Berger et al. 1972: 544).

Reciprocal pronouns are often preferable or exclusively possible if the base construction contains a locative constituent marked by a locative preposition, postposition and/or a locative case (as, for instance, *kini-tten* ‘from him’ in (16a)) and the underlying verb does not specify unambiguously the spatial characteristic of the action. Verbal reciprocals, on the contrary, are most frequently derived from bases with the inherent spatial meaning of joining something to something (see section 8 below). This distribution is typical both of the Turkic languages and German (see Nedjalkov 2000: 102-117) and many other languages. Consider a Yakut example (N. M. Artem’ev, p.c.):

- (16) a. *Aya-m kini-tten kuot-ta-Ø*
 father-my s/he-ABL run.away-PAST-3SG
 ‘My father ran away from him.’
 b. *Kini-ler beye-beye-leri-tten kuot-ta-lar*
 s/he-PL each.other-REFL.POSS-ABL run.away-PAST-3PL
 ‘They ran away from each other.’

Opposite to Yakut in this respect are Karachay-Balkar and Turkish.² Thus, for instance, in Karachay-Balkar there is no counterpart for the Yakut reciprocal in (8): the reciprocal suffix in Karachay-Balkar, which covers about 60 items, is unproductive, no new suffixed reciprocals being derived (though new derivatives are comprehensible to native speakers). There are reciprocals meaning ‘to hit each other’, ‘to bite each other’, but there are no reciprocals meaning ‘to praise each other’, ‘to love each other’, ‘to kiss (each other)’, etc. In this language, in contrast to Yakut, sentences with reciprocal pronouns are much more common. Here is one of the three reciprocal pronouns encountered on one page only of a folklore text of the Balkar variety of Karachay-Balkar (Boziev 1962: 124):

- (17) *Alay anı bla erkin oyna-rya bir-biri-n*
 but s/he.GEN with freely play-INF each-other-ACC
žiber-me-y e-di-le.
 let.go-NEG-CONV AUX-PAST-3.PL
 ‘But (they) did not let each other play with him freely.’

1.3. The weakening of the nominal properties of reciprocal pronouns

Constructions (8), (9), (10) raise the problem of nominal properties of the reciprocal pronoun, such as the ability to occupy the same syntactic positions as nouns proper, excepting the subject position. (8) is an intransitive construction with a suffixed reciprocal where a direct object expressed by a noun cannot be added. (10) is a transi-

² As Kornfilt (1997: 159) asserts, “<...> there are only a certain number of <...> reciprocal verbs which are related to the corresponding simple verbs in a transparent fashion”.

tive construction where the direct object position is occupied by the reciprocal pronoun, the valency structure of the sentence being preserved. Hence, the problem of the status of construction (9), which contains an intransitive reciprocal verb, as does (8), and also the reciprocal pronoun in the accusative, like (10). Thus, we may tentatively assume that the nominal properties of the reciprocal pronoun in cases like (9) are weakened: it functions in (9) as a kind of adverbial although it has acquired fewer adverbial properties, as is the case in some other languages, e.g. Bulgarian *edin drug* 'each other' and French *l'un l'autre* 'each other', which cannot be used as reciprocal markers alone with non-reciprocal verbs, i.e. verbs without a reflexive clitic (with the exception of verbs taking a prepositional object).

Thus, the French sentences (18a) and (18b) are grammatical and (18c) is not:

- (18) a. *Les parents s'aiment* 'The parents love each other/themselves'
 b. *Les parents s'aiment l'un l'autre* 'The parents love each other'
 c. **Les parents aiment l'un l'autre* (same intended meaning).

In this connection it may be relevant to note that according to Kuular (forthcoming), Tuvan suffixed reciprocals are used mostly without the reciprocal pronoun *bot-bot-tar-i-n*, while the latter is not used alone, as a rule, but with suffixed reciprocals.

Note that suffixed reciprocals derived from three-place transitives usually retain the direct object, which means they are not intransitivized by the reciprocal suffix (as it eliminates a non-direct object), as shown in the following Yakut example:

- (19) *Ikki inibii kur-dar-ı-n bıld'a-s-pit-tar ühü.*
 two brother belt-PL-POSS-ACC take.away-REC-PAST-3.PL they.say
 'They say two brothers are taking belts from each other' (Pekarskij 1959: 616).

It should be added that derived transitive verbs with the non-reciprocal meanings of the suffix *-s* (*-s*), such as the sociative, comitative and assistive, retain the direct object of the base verb (see (20) and (23)).

2. Four main meanings of the Turkic suffix *-s* (*-s*)

The four meanings discussed in this section are regarded as the *main* ones, all the other meanings entering the polysemy of reciprocal markers are termed here *secondary*, whatever their productivity.

It may be suitable to open this section with the following quotation from Severtjan (1962: 528), which, though it concerns Azerbaijani, is also applicable to many other Turkic languages:

"In respect of the variety of its meanings, both productive and unproductive, the reciprocal-sociative voice [vzaimno-sovmestnyj zalog] is the richest, exceeding in this the reflexive voice. At the same time, this voice may be regarded as the least grammati-

calized because its productive meanings in Azerbaijani are not derived mechanically but are dependent on certain conditions.” (my translation - V.N.)

The four main meanings of the suffix *-š* (*-s*), which may be expressed in many, albeit not all, Turkic languages, can be illustrated by a Tuvan derivative in (20). These meanings have been repeatedly distinguished in the literature (see, among others, Böhtlingk 1989 (1851): 393-394; Xaritonov 1963: 16-50; Zinnatullina 1969: 182-197). These meanings were already distinguished in the works of Mahmūd al-Kāšgarī (Fazylov 1965: 78-96; Nigmatov 1973: 51).

Note that this suffix can involve all the possible valency changes, including zero change, as in the sociative meaning (with simultaneous increase of the number of participants in this case, like in those with valency increase, i.e. comitative and assistive). Thus:

a) The subject of reciprocals and sociatives is plural (at least semantically), as a rule (see, however, (21)):

- | | | |
|---------------------|-------------------------------|---------------------------------|
| (20) <i>üpte-š-</i> | i. ‘to rob each other’ | reciprocal (valency decreases) |
| | ii. ‘to rob someone together’ | sociative (valency is retained) |

b) The subject of comitatives and assistives can be either singular or plural; the valency increases (at least semantically).

- | | |
|---|------------|
| iii. ‘to rob someone together with someone’ | comitative |
| iv. ‘to help someone rob someone’ | assistive |

The context usually disambiguates any reciprocal form. It goes without saying that one or another meaning of the reciprocal suffix is determined by the lexical meaning and valency of the base verb and pragmatic situation; it is also related to the transitivity or intransitivity of the derivative. Thus, for instance, the Yakut derivative *tapta-s-* in (1) can acquire only the reciprocal meaning ‘to love each other’, like the reciprocals *ubura-s-* ‘to kiss each other’, *öydö-s-* ‘to understand each other’ (Xaritonov 1963: 33), while Tatar *šaula-š-* ‘to rustle’ (about leaves) in (24) can be sociative only (in this example, as in many other analogous examples, the sociative sense is difficult to render in the English translation). Sometimes, a derivative is conventionally fixed in one of the possible meanings; cf. Yakut *bar-ış-* used in the comitative meaning ‘to go with sb’ exclusively and never, for unclear reasons, in the sociative meaning ‘to go together’ (N. M. Artem’ev, p.c.). But the latter seems to be untypical: usually, derivatives which may have the comitative meaning can also express the sociative meaning, in the same way that derivatives with the assistive meaning can be used in the comitative and sociative meanings (the opposite is not necessarily true). As regards sociatives and reciprocals, their lexical range overlaps.

Cross-linguistically, reciprocal constructions can be classified according to the possibility of expressing one of the reciprocants by a non-subject constituent. In all

the Turkic languages, reciprocal constructions with a non-subject constituent seem to be possible, and thus they may involve not only valency decrease but also retain the number of the arguments. However, in this latter case demotion of the second argument takes place. This kind of constructions can be called *secondary* reciprocal constructions. The predicate agrees with the subject participant only, as in the following Tatar example (taken from Isxakova 1974: 278):

- (21) a. *Fərid belən Mostafa kočakla-ş-a-lar.*
 F. and M. embrace-REC-PRES-3.PL
 ‘Farid and Mustafa embrace each other.’
 b. *Fərid Mostafa belən kočakla-ş-a-Ø.*
 F. M. with embrace-REC-PRES-3.SG
 (same) lit. ‘Farid embraces each other with Mustafa.’³

This property of Turkic reciprocals noticeably distinguishes them from the reciprocal constructions of Romance languages and also of German, where, with very few exceptions, type (22b) constructions are ungrammatical (these exceptions are related to lexicalization; cf. German *Peter schlug sich mit Hans* ‘Peter fought with Hans’); cf. the following German example:

- (22) a. *Peter und Hans umarmten sich.* ‘Peter and Hans embraced each other.’
 b. **Peter umarmte sich mit Hans* lit. ‘Peter embraced each other with Hans.’

As a rule, derivatives with the reciprocal, assistive and comitative meanings are more or less easy to translate into English. The same applies to transitive sociatives. In these cases the derived meanings are distinctly different from the base meanings. As (23c) and (23d) show, the comitative and the assistive meanings involve different marking of the object: the postposition *kitta* with the accusative or dative case respectively.⁴ Cf. the following Yakut examples (N. M. Artem’ev, p.c.):

- (23) a. *Aha-m ikki min ot tiey-di-bit.*
 father-my and I hay carry-PAST-1PL
 ‘Father and I carried hay.’

³ Such constructions were already registered by Mahmūd al-Kāšgarī (cited from Nigmatov 1973: 51): *ol meniñ birlä quç-uş-dı* (II, 98) lit. ‘he embraced with me’.

⁴ As it happens, the dependence of the comitative and assistive meanings on the explicit expression of the second participant was already noted by Mahmūd Kāšgarī (reported by Severtjan 1962: 539). Xaritonov (1963: 23) terms all the three meanings as *jointness* (= Russian term *sovmestnost’*) and distinguishes among them (lit.) *total jointness* (= *sovokupnaja sovmestnost’*), i.e. sociative in the terminology used in this paper, and (lit.) *adjoining jointness* (= *primykajuščaya sovmestnost’*) which covers the comitative and assistive meanings, in the terminology used here.

- b. *Aha-m ikki min ot tiey-is-ti-bit.* sociative
 father-my and I hay carry-REC-PAST-1PL
 'We carried hay together.'
- c. *Aha-m miig-in kitta ot tiey-s-t-e.* comitative
 father-my I-ACC with hay carry-REC-PAST-3.SG
 'Father carried hay with me.'
- d. *Aha-m mie-xe ot tiey-s-t-e.* assistive⁵
 father-my I-DAT hay carry-REC-PAST-3.SG
 'Father helped me carry hay.'

The verb 'to cart', 'to carry', etc., like other two-place transitive verbs with an inanimate direct object, often requires lexical indication of the reciprocal meaning; e.g.:

- e. *Aha-m ikki min xardarita ot tiey-is-ti-bit.*
 father-my and I by.turns/mutually hay cart-REC-PAST-1PL
 'Father and I carted hay to each other.'

The sociative meaning of intransitive derivatives, on the contrary, can be (not infrequently) elusive and therefore may be difficult to translate, because translations with words like 'together' may sound clumsy and overemphasized, especially if the subject is inanimate, e.g. in sentences with meanings like 'the stars are twinkling', 'the firewood is burning', 'apples were hanging down from the branches', etc. In derivatives of intransitives the sociative meaning seems to evolve in the direction of a kind of emotive or intensifying colouring. Compare the following Tatar (Zinnatullina 1968: 185) and Karachay-Balkar (A. A. Xasanov, p.c.) examples:

- (24) *yafraq-lar şaula-ş-ti.*
 leaf-PL rustle-REC-PAST
 'The leaves started rustling.'

⁵ Cross-linguistically, the development of the assistive meaning (sharing semantic and syntactic (viz. valency increase) properties with the comitative and causative) on the reciprocal marker in the Turkic languages is not accidental. It is in fact semantically motivated. It may be noted in passing that the assistive meaning can be expressed not only by a special marker, like the Aymara suffix *-jaya/-jaa* (Middendorf 1891: 145; note that this suffix seems to contain the causative suffix *-ya/-aa*; cf. *ibid.*, p.148), but also by markers with such meanings as comitative (cf. the suffix *-ysi* in Bolivian Quechua; van de Kerke (1996: 28-29); to be precise, its meaning 'to accompany sb' is not a pure comitative meaning, but it implies the sense 'for the purpose of giving assistance'; see Bills, Vallejo, & Troike 1969: 306-307), or the causative (cf. the circumfix *a-...-in-* in Georgian (Gecadze, Nedjalkov & Xolodovič 1969: 149-150) and the suffix *-idz-* in Shona (Aksenova 1990: 172)). Cf. also the assistive meaning of the Buryat suffix *-lsa* in (26d).

- (25) *ala dībirtla-š-dī-la.*
 they gallop-REC-PAST-3.PL
 ‘They broke into a noisy run (in a hurry, in a disorderly way, kind of overrunning each other)’.

In connection with (24) and (25), it may be useful to cite the following comments on Yakut sociatives by a linguist who is also a native speaker of Yakut: “a joint action is understood as one common action in which two or more acting persons participate in equal measure”; “verbs of joint action manifest in their meaning the presence of some inner bond between the participants”; “the linking bond is probably the unity of the cause and the unity of the situation (and of psychological conditions) of the action performed” (Xaritonov 1963: 24-25). Compare the opinion on Tatar sociatives concerning their difference from the plain plural number: “*Čirildašabız, köleşbez, şaulaşabız* – they do not mean simply ‘(we) squeal’, ‘(we) laugh’, ‘(we) make noise’, though there is no other way of expressing their meaning in Russian. Due to the suffix, they present the actions as a sum of single acts of a great number of people and not as a single process <...> The actions are expressed as dimensional, dynamic: the action of each person has its own peculiarities, it is performed at different intervals.” (Zinnatullina 1969: 194-195). The very last statement about different intervals should be understood, I think, as a series of swallow-tailing acts, close to the distributive meaning, but this is only one of the types of situations denoted by sociatives. On the relations between the sociative and the distributive meanings and markers see Kemmer (1997: 231-249).

With respect to the four main meanings of Turkic reciprocal markers, judging by the specialist literature that was available to me (over 200 titles), this set of meanings is not attested in reciprocal markers of other world languages so far, excepting the areally close Mongolic languages, e.g. in Buryat, where these meanings can be expressed by the suffixes *-lda* (in Buryat and Khalkha) and *-lsa* (in Buryat), *-lca* (in Khalkha). Compare the following examples taken from Sanžeev (1963: 240); Cyden-dambaev (1979: 109) and Kuz’menkov (1984: 75) respectively:

- (26) a. *Tani-lsa-aar tata-lda-xa, xara-lsa-aar*
 recognize-REC-CONV pull-REC-PART look-REC-CONV
xaza-lda-xa bolo-xo-mnaj gü, übgen?
 bite-REC-PART AUX-PART-OUR Q old.man
 ‘Why is it, old boy, as soon as we meet we start fighting, as soon as we see each other we start biting each other?’

If the subject is plural the construction allows two readings: (a) sociative, if all the participants are thought to be named by the subject (see (i) below); (b) comitative, if the subject is interpreted as one collective participant and the second participant is considered as omitted (see (ii) below). This ambiguity is observed in Turkic languages as well.

- b. *Xuragša-d-Ø ... xüdelmerişe-d-öör žel büri übhe-Ø xur'aa-lsa-dag.*
 pupil-PL-NOM worker-PL-INST year every hay-NOM make-REC-PART
 i. 'Every year all the pupils make hay together as workers.'
 ii. 'Every year the pupils take part in making hay as workers.'

The following sentence is comitative in meaning, but the translation '...after him' instead of '...with him' is a more precise description of the situation when two persons go through the door together'.

- c. *Parxae ... xoino-hoo-n' gara-lsa-ba.*
 P. behind-ABL-his go.out-REC-PAST
 'Parxaj went out after him.'

The following Khalkha sentence is assistive in meaning, but the participant who receives help is denoted by a genitive attribute of the direct object rather than by a dative object; therefore, the syntactic valency is unchanged while the semantic valency has increased, as in the previous instance.

- d. *Bat Dorži-in ger-iig bari-lsa-na.*
 B. D.-GEN yurt-ACC rig.up-SOC-PRES
 'Bat will help to rig up Dorji's yurt.'

It has been noted in Turkology that a number of Turkic languages lack the assistive meaning. The polysemy covering all the four meanings is characteristic of Yakut, Tuvan, Khakas, Tofalar, Tatar, Turkmenian, Uzbek, Karakalpak, Kazakh, and Salar, but not of Azerbaijani, Turkish, Karachay-Balkar, Gagauz and Karaim, where the assistive meaning is lacking (see also Sevortjan 1962: 532). It is unclear whether the second group of languages has lost this meaning or failed to develop it in due time. It is possible that there are different explanations for the different languages of this group.

In conclusion, note that the four meanings at issue differ in the degree of proximity between them.

In the sequence of meanings *reciprocal* – *sociative* – *comitative* – *assistive*, the ones closest to each other are the *sociative* and *comitative*, and those most removed from one another are the *reciprocal* and *assistive*. The *reciprocal* and *sociative* meanings are close enough because of the plural subject, and the *comitative* and *assistive* are very close because acting with someone often involves assisting. If we look for the semantic proximity of any three of the four meanings, i.e. for features they share, which bring them close together, we may establish the following triplets of meanings: *reciprocal* – *sociative* – *comitative* and *sociative* – *comitative* – *assistive*. Expressing each of these two triplets of meanings by the same marker seems to be common enough cross-linguistically (cf. (27) and (28)), while the common marker

for all four meanings is registered, so far, in the areally close Turkic and Mongolic languages.

Here are examples from Rwanda (Aksenova 1994: 160, 177; *-an* = REC; *n'*- (before vowels; < *na*) = preposition 'with') and Ancient Greek (Dvoreckij 1958: 1542; the prefix *sym-* more or less corresponds to the German detachable prefix *mit-*; the translation of the 1SG by means of the infinitive is conventional) respectively:

- | | | |
|--------------------------------|---------------------------|------------|
| (27) a. <i>tu-reb-an-a</i> | 'they look at each other' | reciprocal |
| b. <i>tu-kor-an-a</i> | 'they work together' | sociative |
| c. <i>n-kor-an-a n'-ûmwâna</i> | 'I work with the girl.' | comitative |
-
- | | | |
|---|----------------------------------|------------|
| (28) <i>féro</i> 'to carry' → <i>sym-féro</i> | i. 'to carry sth together' | sociative |
| | ii. 'together with sb carry sth' | comitative |
| | iii. 'to help sb carry sth.' | assistive |

3. The Turkic suffix *-ş* (*-s*) and three main types of polysemy of the reciprocal markers in the world languages

Note in the first place that there are numerous languages with monosemous reciprocal markers, e.g. Chukchi, Even, Yukaghir, Itelmen, Ainu, Nivkh, etc., which do not concern us in this section.

As regards the meanings most closely related to the reciprocal, three are the most important: reflexive (shared feature – anaphoric relations), sociative (shared feature – multiplicity of participants) and iterativity (shared feature – multiplicity of actions). Accordingly, the following three main types of polysemy can be postulated for reciprocal markers. They also happen to be widespread across languages.

3.1. Reflexive-reciprocal polysemy

The reflexive-reciprocal polysemy is a result of the polysemy of reflexive markers rather than reciprocal markers, because the main meaning of this type of markers is reflexive, the reciprocal being a later development (cf. Geniušienė 1983: 140-141, 1987: 344-348; Kemmer 1993: 151-200). This type of polysemy is typical of many languages of various families, e.g. French, German, Slavic, Mansi, Maasai, Mizo, Limbu, Amharic, Shoshone, etc. The following examples are Bulgarian (29a), German (29b), Sumbwa ((30); Capus 1898: 64; *-i-* = REFL) and Russian (31) respectively:

- | | |
|-----------------------------|---|
| (29) a. <i>Te me gledat</i> | 'They watch me.' |
| → <i>Te se gledat</i> | i. 'They watch themselves (in the mirror, etc.).' |
| | ii. 'They watch each other.' |
| b. <i>Sie lieben mich</i> | 'They love me.' |
| → <i>Sie lieben sich</i> | i. 'They love themselves.' ii. 'They love each other.' |

- (30) *-shim-a* ‘to love’ → *-i-shim-a* i. ‘to love oneself’, ii. ‘to love each other’
-gay-a ‘to hate’ → *-i-gay-a* i. ‘to hate oneself’, ii. ‘to hate each other.’

In Russian, the reflexive and reciprocal meanings of the postfix *-sja/-s’* are in complementary distribution relative to the sets of verbs, with one or two exceptions.

- (31) a. *Oni brejut ix* ‘They shave them.’
 → *Oni brejutsja* ‘They shave [themselves].’
 b. *Oni obnimajut ix* ‘They embrace them.’
 → *Oni obnimajutsja* ‘They embrace each other.’

As is known, the Turkic reflexive marker *-in-* does not have the reciprocal meaning.

3.2. Reciprocal-sociative polysemy

This type of polysemy is also typical of numerous languages, e.g. Turkic, Bantu, Tagalog, Halkomelem, Mongolic, Palau, etc. Here are examples from Buryat (Cheremisov 1973: 63, 361) and Karanga (Marconnès 1931: 195):

- (32) a. *asuu-* ‘to ask someone’ → *asuu-lda-* / *asuu-lsa-* ‘to ask each other’
 b. *oro-* ‘to enter’ → *oro-lda-* / *oro-lsa-* ‘to enter together.’
- (33) *Ti no chek-an-a [nyama]*
 we NO cut-REC-IND meat
 i. ‘We shall cut each other’ reciprocal without the object
 ii. ‘We shall cut the meat together’ sociative with the object included

I wish to stress that the Turkic languages represent this type of reciprocal polysemy; cf. the Yakut example (cf. also Xaritonov 1963: 31):

- (34) *Kiniler [is tañah-ı] mülala-s-t-ılar.*
 they interior clothes-ACC soap-REC-PAST-3.PL
 i. ‘They soaped each other’ reciprocal without the object
 ii. ‘They soaped the underwear together’ sociative with the object included

On this type of polysemy see also Lichtenberk (1985: 19-41).

3.3. Iterative-reciprocal polysemy

This type of polysemy has been recently described in the Chinese data as having developed from the iterative; similar polysemy is also attested in some Oceanic languages. The examples are from Chinese (Liu 1999: 124, 126; *dǎ* ‘to hit’, *V-lái-V-qù* = iterative-reciprocal where *lái* = ‘come’ and *qù* = ‘go’), Samoan (Mosel & Hovdhaugen 1992: 180-183), Sobei (Sterner 1987: 53; *re-* = ‘they’; *-re/-ro-* = REC infix).

- (35) *dǎ-lái-dǎ-qù* i. ‘to fight several times’ ii. ‘to beat each other.’

- (36) a. *a'a* 'to kick' → *fe-a'a* 'to kick again and again'
 b. *sogi* 'to kiss' → *fe-sogi* 'to kiss each other.'
- (37) a. *re-fedfadnar* 'they jump' → *re-f-re-dfadnar* 'they jump repeatedly'
 b. *re-soro* 'they help' → *re-s-ro-ro* 'they help each other.'

A variety of this type is probably the distributive-reciprocal polysemy of a reciprocal marker.

Besides these three types, other types of polysemy of reciprocal markers are also possible which seem to be less widespread. Such types can be accounted for by the reason that one of the three concomitant meanings has gone out of use, as is the case in present-day Kirghiz, where the sociative meaning is lost.

3.4. An instance of a secondary meaning of polysemous markers

Each of the three types of polysemous markers in question can possess some other meanings, e.g. competitive, anticausative and that of plurality, and, though differing in productivity, they are also attested in some other genetically related and non-related languages. They will be discussed further on (see sections 7.3, 7.2 and 8.4 respectively). Here I will mention only one of such meanings, namely, the meaning known as "antipassive", "depatientive", "absolutive"; see, for instance, Dixon (1980: 434, 440, 445-448ff.), Lichtenberk (1991: 171-183), Geniušienė (1987: 87, 249, 314), etc. (In Russian grammatical tradition, this meaning is sometimes termed "active-objectless" (aktivno-bezob'ektnoe); cf. Janko-Trinickaja 1962: 198-202.) In this case the predicate, while generally retaining its meaning, loses its object (is intransitivized) if in a given situation the object is obvious from the situation or context or is irrelevant (= "absolutive"); it may further evolve into the meaning of a habitual property of the subject-referent, which also makes the object irrelevant (= "habitual"). I propose the general term "absolutive" for this meaning, with the term "habitual" for a submeaning within.

In most Turkic languages there occur only occasional derivatives (or none at all) of this type. Thus, for instance, in Yakut there are only a few such derivatives (among them, *bultaa-* 'to hunt' → *bulta-s-* 'to be engaged in hunting', *et-* 'to scold' → *et-is-* 'to be scolding' (vi); *irdee-* 'to recover (debts)' → *irde-s-* 'to be engaged in recovering debts'). This meaning is not attested in Khakas (Letučiy, forthcoming) and Karachay-Balkar.

On the other hand, in Tatar, judging by the information in Zinnatullina (1969: 192-193), absolutes are rather productive, being represented by several dozens of items. It is likely that verbs of this type have similar productivity in the closely related Bashkir language, judging by the list of Juldašev (1981: 253). As a rule, they denote habitual activity which may have become a distinctive feature of the subject referent, though this may not be easy to show in the translation, as the implication of habituality may be rather slight (ibid., p. 193). Compare:

- (38) *alda-* ‘to deceive’ → *alda-š-* ‘to deceive, be in the habit of deceiving’
ələklə- ‘to inform, sneak (on)’ → *ələklə-š-* ‘to be a habitual sneaker’
yaz- ‘to write’ → *yaz-ış-* ‘to be engaged in writing’
könlü- ‘to be jealous’ → *könlü-š-* ‘to be jealous, envious.’

Needless to say, derivatives of this kind may be polysemous and also have other meanings typical of the reciprocal suffix; e.g. (Tatar-Russian dictionary 1966: 591):

- (39) *urla-* ‘to steal’
urla-š- i. ‘to be engaged in stealing, to be a thief’ absolutive
 ii. ‘to steal from each other’ reciprocal
 iii. ‘to help sb in stealing’ assistive
 iv. ‘to take part in stealing’ comitative

The meaning in question is attested in languages other than Turkic as well, and it may be expressed by markers with reciprocal-sociative (see Swazi (40); Ziervogel 1952: 73; *-an* = REC/SOC) and reflexive-reciprocal polysemy (see Russian (41); *-sja* = REFL/REC). Verbs with negative colouring are prevalent here, as in Tatar.

- (40) *-tondz-a* ‘to hate somebody’ → *-tondz-an-a* ‘to hate each other’ reciprocal
-lum-a ‘to bite somebody’ → *-lum-an-a* i. ‘to bite severely’ intensive
 ii. ‘to be fierce’ absolutive
-hlaḡ-a ‘to gore’ → *-hlaḡ-an-a* i. ‘to gore severely’ intensive
 ii. ‘to have the habit to gore’ absolutive
- (41) *Byki bodajut-sja* ‘The bulls are butting [each other]’ reciprocal
Smotri, byk bodaetsja! ‘Look, the bull is butting!’ absolutive
Etot byk bodaet-sja ‘This bull butts.’ habitual

Katanov (1894: 31) asserts that in most of its uses the suffix *-š* indicates jointness of identical actions of several agents or repeated performance of the same action presented regardless of the agent(s). Zinnatullina’s (1969: 193) explanation of the origin of the meaning I call absolutive is based on this assertion; she also assumes that it further develops into the meaning of its habitual permanence as a characteristic of the subject referent.

3.5. Note on etymology

In conclusion of this section, a few words about the current theories of the origin of the reciprocal meaning in the three types of polysemy are due. In the cases of reflexive-reciprocal and also iterative-reciprocal polysemy, the primary meaning is most frequently reflexive or iterative respectively. Evolutions of this kind have been registered in the observable historical period. As regards the reciprocal-sociative polysemy, the most likely primary meaning is reciprocal, the sociative being a result of its extension. It is likely that first sociatives from intransitive verbs appeared,

which was facilitated by the predominance of intransitives among reciprocals (transitive reciprocals illustrated in (19) are rather rare cross-linguistically); compare Yakut: *kiniler bil-is-ti-ler* ‘they knew each other’ — *kiniler kül-üs-tü-ler* ‘they (all of them) started laughing’.

The evolution of the sociative meaning from the reciprocal is supported by the existence of sociative markers formed by means of reciprocal markers in a number of languages. (The opposite way of derivation is not known to me.) Besides, a sociative form is a reciprocal derived from a comitative.⁶ Compare the following Haya (Dammann 1954: 168), Ainu (Alpatov, Bugaeva & Nedjalkov forthcoming) and Kabardian (Apazhev et al. 1957: 167, 59, 102) examples (in (42b), (43b) and (44b) the applicative affixes are used in the comitative meaning):

- (42) a. *-nyw-a* ‘to drink’
 b. *-nyw-el-a* ‘to drink with somebody’ (vt) comitative
 c. *-nyw-el-an-a* ‘to drink together’ (vi) sociative
- (43) a. *rewsi* ‘to stay somewhere overnight’
 b. *ko-rewsi* ‘to stay the night with somebody’ (vt) comitative
 c. *u-ko-rewsi* ‘to stay the night together’ (lit. ‘with each other’) (vi) sociative
- (44) a. *kluən* ‘to go’
 b. *də-kluən* ‘to go with somebody’ comitative
 c. *zə-də-kluən* ‘to go together’ sociative

Above, I said that in the case of reciprocal-sociative polysemy the sociative meaning is most likely a secondary development from the reciprocal. This leads to the question of the primary, initial meaning of the suffix *-s(-s)*. In the preceding paragraph, it is stated that in the case of reflexive-reciprocal polysemy the most likely initial

⁶ If we accept the path of derivation as a reflection of the semantic structure of the sociative, we have to admit that the sociative meaning is semantically more complex than the reciprocal. It can be added that the comitative meaning in itself is essentially reciprocal; cf.: *I am going with you = You are going with me = We are going together*. In the last sentence, *together* can be semantically explained as ‘with each other’ (stylistically, this phrase is unacceptable), i.e. the sociative meaning can be explained via the reciprocal. The opposite, i.e. explaining the reciprocal meaning by means of the sociative, is hardly possible. In this connection it may be appropriate to mention that in Nivkh, the concept ‘together’ is denoted by the reciprocal form of the verb with the meaning ‘to go with sb, accompany sb’, which is a kind of lexical comitative: *i-yrə-t* ‘accompanying him’ (*i-* = 3.SG, *-t* = CONV) → *u-yrə-t* ‘together’, lit. ‘accompanying each other’ (*u-* = REC). Other instances of the morphological derivation of the sociative marker are attested in some Bantu languages, cf. Dabida: *-kund-a* ‘to love’ → *-kundan-a* ‘to love each other’ and *-damb-a* ‘to travel’ → *-damb-any-a* ‘to travel together’ (Rjabova 1989: 111).

meaning is reflexive, and in the case of iterative-reciprocal polysemy it is the iterative meaning (these meanings are more elementary than the reciprocal). It is interesting to note that among the proposed hypotheses on the etymology of Turkic *-š* there are two that assume that the initial meaning of this suffix was either reflexive or iterative. The first hypothesis is advocated by Xaritonov (1982: 274), who suggested that before the suffix *-n* came to be used as the principal reflexive marker, the suffix *-s* had been used in the reflexive function, which Xaritonov supports by the argument that in numerous ancient fossilized derivatives with the reflexive marker *-n* the latter is preceded by the reciprocal marker *-h* (< *-s*) (cf. *oŋor-* ‘to do’ → *oŋo-h-un-* ‘to do for oneself’ (here, the fossilized causative suffix *-r* is replaced by the suffix *-h*); *sup-* ‘to close, cover’ → *sab-ih-in-* ‘to overhang something’, ‘to close/ cover something for oneself’; Xaritonov 1963: 47). But this assumption does not explain the origin of the presumable reflexive meaning of the suffix *-s*. Another hypothesis is supported by Serebrennikov and Gadžieva (1979: 208), and Severtjan (1962: 138), who argue that one of the most ancient meanings of this suffix was plurality of actions, i.e. iterativity (one of the arguments in its favour is the use of the suffix *-š* in the complex suffix *-š-tir* denoting iterativity in many Turkic languages; cf. Tatar *uyna-š-tir-* ‘to play from time to time’; see also footnote 8). (For a detailed discussion of this question see Ščerbak 1981: 113-115.)

The issue becomes even more complicated if we take into account the assertion that “A verbal reciprocal suffix **-l(č)-* is widely represented in Turkic”, being a reflex of the Proto-Altaic reciprocal suffix **-l-* (Starostin et al. 2003: 200). The possibility of *-š* originating from *-l* was pointed out by Severtjan (1962: 137).

4. Turkic voices and their correspondences in other languages of Eurasia

While spread over vast territories, mostly in Asia, the Turkic languages cover part of a larger area where a great many other languages are spoken. Of course, the Turkic languages are not in immediate contact with all of them. In the Turkic languages, traditionally, a five-member voice system is distinguished (see (45) for the derived voices). The functions of each of the derived voices include not only the one after which they are named but also a number of other functions. Thus these markers are polysemous and in some of their meanings, e.g. anticausative, they are synonymous, see (81).

(45)	Turkic voices	Suffixes
	reciprocal	<i>-iš-</i>
	reflexive	<i>-in-</i>
	passive	<i>-il-</i>
	causative	<i>-dir-, -t-</i>

Further on, I will briefly consider the existence and expression of the meanings of three of the derived voices in the Eurasian area. In the first place, as it seems, none of non-Turkic languages of the areas in question possesses an analogous five-member

system of voices, each with its own marker.⁷ However, the system of the Kolyma Yukaghir languages has a significant similarity to it, differing in that the counterpart of the Turkic passive is the object-oriented resultative, a category which is very close to the passive.

(46)	prefixes	reciprocal	<i>n'i-</i>
		reflexive	<i>met-</i>
	suffixes	resultative	<i>-o: (l)</i>
		causative	<i>-š-</i>

Generally, three major language domains adjacent to the Turkic area can be distinguished. These three areals, and the languages within each area, differ from one another in the affixal devices used for the reciprocal, causative and reflexive meanings (alongside affixal devices, clitic expression, or, more generally, devices descending from reflexive pronouns are considered here as functionally equal to affixal devices).

Note that reciprocal pronouns like *each other* are not considered here at all. The category of passive is not included in the discussion either.

4.1. The eastern area

The following unrelated languages and language groups are assigned to this territory: Mongolic, Tungusic, Chukchi, Itelmen, Eskimo, Yukaghir, Nivkh (Gilyak), Ainu, Ket, Aleut, Japanese. In fact, this area is the original territory of the Turkic languages. Being genetically unrelated and occupying a vast territory, these languages exhibit similarity in the morphological expression of the reciprocal, causative and reflexive meanings.

1) Most languages of this area, as well as the Turkic languages, possess reciprocal affixes: suffixes (Buryat *-lda*, *-lsa*; Evenki *-maat*, *-ldə*, Chukchi *-wəly*, *-čit*, Eskimo *-uta*; Japanese *-a/-aw*) or prefixes (Yukaghir *n'i-*; Itelmen *lu-*; Nivkh *u-*; Ainu *u-*). An exception are Ket and Aleut, which have no reciprocal affixes.

Among the languages of this area, three groups of languages possess highly polysemous reciprocal markers, which testifies to their ancient character. These are the Turkic, Mongolic and Eskimo languages. In the other languages the reciprocal marker is either monosemous or has a weak polysemy.

2) Like Turkic, all the languages of the area except Ket have causative affixes.

3) Besides in the Turkic languages, reflexive affixes are attested in three languages of the area only: Yukaghir (*met-*), Ainu (*vay-*) and Nivkh (*p'(i-)*).

⁷ Outside Eurasia, the analogous system is registered in Swahili where there are “five voice categories: active, passive, reflexive, reciprocal and causative”, each with its own marker: zero for the active, passive *-w*, reflexive *-ji-* (placed in the slot of the object agreement marker), reciprocal *-an* and causative *-ish* (Vitale 1981: 177).

4.2. The western area

This area comprises Indo-European languages. As is known, in many languages of this family the reciprocal meaning is expressed by a reflexive clitic, reflexive pronouns (or, more generally, devices descending from reflexive pronouns) like German *sich*, Bulgarian *se*, etc. (see examples (29)-(31)). In contrast to the languages of the eastern area, where most of the reciprocal markers are monosemous, in the western area there are no monosemous reciprocal markers. In contrast to the languages of the eastern area, in which the Turkic languages are also included, the Indo-European languages lack morphological causatives (exceptions: the Baltic, Armenian and Indo-Iranian languages).

In some languages of this area a reflexive-reciprocal clitic [or a preposition] developed into an affix:

a) a postfix in East Slavic languages (see (31)) and Latvian, and a postfix (in unprefixed verbs) or interfix (in prefixed verbs) in Lithuanian (see, for instance, Geniušienė 1987: 19); cf. Lithuanian:

- (47) a. *stumdyti* 'to push' → *stumdyti-s* 'to push each other' (imperfective)
 b. *pa-stumdyti* 'to push' → *pa-si-stumdyti* 'to push each other' (perfective)

b) a prefix, also descending from a reflexive pronoun, in a language of the Rhetoromance group, viz. Surselvan (Stimm 1977: 70, 84); cf.:

- (48) *jeu selavel* (vi) 'I wash [myself].'

c) In Celtic languages, a preposition genetically related to the German *um*, Old English *ymbe*, Latin *ambi* 'around', became a verb prefix (see among others Lewis & Pedersen 1961: 264). Though non-reflexive by origin, this prefix displays a polysemy typical of the Indo-European reflexive clitics and including the reflexive and reciprocal meanings. This prefix is practically lost in Irish, but it is still preserved in a number of derivatives in Welsh (*ym-* < *ambi-*) and Breton. Here are examples from Welsh (Evans & Thomas 1981: 203-206):

- (49) a. *ymolch* 'to wash oneself'
 b. *ymweld* 'to see/visit each other.'

4.3. The "intermediate" area

This is the territory occupied by Uralic (Finno-Ugric and Samoyedic) languages. This area may be regarded as a kind of intermediate because, like the languages of the eastern area, the Uralic languages possess causative affixes, on the one hand, and on the other, they have reflexive-reciprocal markers, like the Indo-European languages (though suffixes, not clitics). Examples from Mansi (Rombandeeva 1973: 148-149), Mari (Galkin 1966: 333, 817) and Udmurt (Tepliashina 1966: 273) respectively are cited below:

- (50) *lowt-xat-* 'to wash [oneself]'
titt-xat- 'to feed each other'
say-xat- i. 'to plait one's hair' ii. 'to plait each other's hair'

- (51) *mušk-ilt-* 'to wash [oneself]'
šupšal-alt- 'to kiss [each other].'

- (52) *düs 'a-s 'kĩ-* 'to dress [oneself]'
vera-s 'kĩ- 'to talk, converse'

4.4. The continuum from causative and reciprocal towards reflexive-reciprocal

A simplified overall picture can be shown by the following schema, in which the brackets signify weak use or absence of the respective verbal derivatives in the languages of the area:

Eastern area	"Intermediate" area	Western area
CAUSATIVE	CAUSATIVE	(CAUSATIVE)
RECIPROCAL	(REFLEXIVE-RECIPROCAL)	REFLEXIVE-RECIPROCAL
(REFLEXIVE)	(REFLEXIVE-RECIPROCAL)	REFLEXIVE-RECIPROCAL

As mentioned, the causative and reciprocal markers (suffixes and prefixes) are more prominent in the eastern area (where the Turkic languages belong) and the reflexive-reciprocal markers (clitics, etc.) in the western area. The "intermediate" area manifests markers (suffixes) which link the other two areas.

The loss of morphological causatives in the majority of Indo-European languages has caused the development of other devices for expressing semantic causative oppositions, including development of labile verbs (like English *to break* (vi/vt)), of anticausative forms (cf. Russian *slomat* 'to break' (vt) → *slomat'sja* 'to break' (vi)), and also the use of auxiliary causative verbs (cf. German *kommen* 'to come' → *kommen lassen* 'to cause to/let come') (see, among others, Terasawa 1985: 133-143; Zubizarreta 1985: 247-289; Cannings & Moody 1978: 331-362; Nedjalkov 1976).

A few words about the Caucasian area, which is also adjacent to the Turkic area (Karachay-Balkar, Kumyk, Noghai, Azerbaijani, Turkish) are due. In this area languages of five families neighbour the Turkic languages. As for morphological causatives, reflexives and reciprocals, they are absent in Ossete, an Indo-European language. Morphological causatives are attested in Tati, another Indo-European language, and also in Georgian, Chechen-Ingush and some Daghestan languages, morphological reflexives and reciprocals being absent. And only in one family, Abkhaz-Adyghe, do all three meanings find morphological expression, the markers of reflexives and reciprocals being genetically related.

5. Productivity of the reciprocal, sociative and assistive meanings of the suffix *-š(-s)* in some Turkic languages

Between the Turkic languages, there are of course differences in both the sets of meanings of the suffix *-š(-s)* and their productivity. Among the most prominent differences, the following should be named in the first place (the first two facts that have been mentioned above are repeated here in the general context of the differences).

(a) The reciprocal meaning is productive in Yakut (Uyghur, or North-Eastern group) and unproductive in Turkish (Oguz group) and Karachay-Balkar (Kipchak group).

(b) The assistive meaning is productive in the languages of the Uyghur group and many languages of the Kipchak group (Tatar, Kazakh, Kirghiz), and also in Turkmenian (Oguz group), and it is absent in Karachay-Balkar and Karaim (Kipchak group) and Turkish and Azerbaijani (Oguz group).

(c) The sociative meaning is highly productive in Yakut; it is lost in present-day Kirghiz (which may be due to the employment of this suffix as the 3PL marker; see 7.1). In Karachay-Balkar and Tatar it occurs mostly on intransitive bases (Nedjalkov 2002: 54-62; Isakova 1974: 283-284).

As we see, the differences do not necessarily correspond to the classification of these languages: sometimes, there is an overlap between them with respect to the features mentioned (true, this also pertains to some other properties of Turkic languages). It would be interesting to find out whether the unproductivity of the reciprocal and the assistive meanings was initially characteristic of the marker or developed later (probably in connection with the advancement of the Turkic tribes westward and interaction with the local languages).

As an instance of different productivity of the meanings under discussion in various Turkic languages, Tatar might be cited: according to Zinnatullina (1969: 190, 187, 193), the assistive meaning is much more common than the reciprocal and sociative. In her corpus of about 660 derivatives in *-š* these three meanings are distributed as follows: 335 assistives, 110 reciprocals and 130 sociatives.

6. “Geography” of the productivity of the meanings of the reciprocal markers: reciprocal-sociative (Turkic languages) and reflexive-reciprocal (Indo-European and Uralic languages)

By somewhat simplifying the overall picture, one may propose the following observations.

1) Among the Turkic and Finno-Ugric languages, the productivity of the reciprocal use of the markers in question diminishes and even becomes lost in the western part of the area (cf. Yakut and Karachay-Balkar and, on the other hand, Mansi and Finnish).

2) In the Indo-European languages, on the contrary, the productivity diminishes or becomes lost in the opposite direction, i.e. in the eastern part of the areal (Baltic,

East Slavic languages, also Armenian (suffix *-v*) and Modern Greek (middle (passive) conjugation), Indo-Iranian, (and probably Rumanian and Albanian), while in French, Spanish, Italian, and also German and in West and South Slavic languages this meaning is highly productive.

3) It might as well be added that some Indo-European (Celtic, English, Scandinavian, Dutch) and Uralic (Finnish, Estonian, Samoyedic) languages, i.e. languages of Northern Europe and a part of north-western Asia, display the absence or unproductivity of reflexive-reciprocal markers.

4) If we compare these tendencies in the first two areas, we conclude that the productivity of the reciprocal function of reciprocal markers (i.e. markers one of whose meanings is reciprocal) diminishes in the direction towards a certain point in Eastern Europe.

7. On secondary meanings of the Turkic reciprocal suffix

7.1. Introductory remarks

Alongside the four main meanings which may cover large lexical groups of verbs though not in all Turkic languages, the reciprocal suffix may have a number of secondary meanings (one of these is considered above in 3.4).

7.1.1. Unproductive secondary meanings

These meanings are represented by limited sets of derivatives numbering two or more items in one or several Turkic languages only; cf., for instance, the converse meaning in Yakut (Xaritonov 1963: 45):

- (53) a. *atīlāa-* 'to sell something to somebody'
 → *atīlā-s-* 'to buy something from somebody'
 b. *tūūlee-* 'to lease (meadowland)'
 → *tūūle-s-* 'to take meadowland on lease' (arch.)
 c. *naymīlāa-* 'to hire'
 → *naymīlā-s-* 'to apply for work'

or the imitative meaning in Tuvan (Kuular 1986: 76):

- (54) a. *sadīgla-* 'to work as a salesperson'
 → *sadīgla-š-* 'to play shopping'
 b. *baškīla-* 'to be a teacher, to teach'
 → *baškīla-š-* 'to play teachers'
 c. *emčile-* 'to work as a doctor'
 → *emčile-š-* 'to play doctors',

or the pseudo-reciprocal meaning in Tuvan (Kuular, forthcoming):

- (55) a. *emzir-* ‘to breast-feed (a baby)’
 b. *Ava-ški-lar emzir-ž-ip olur-gan-nar*
 mother-COLL-PL suckle-REC-CONV AUX-PAST-PL
 ‘Mother was breast-feeding her child.’
 lit. ≈ ‘Mother and her children breast-fed each other.’
 [more precisely, *ava-ški-lar* means ‘mother and her child(ren) ...’]

It goes without saying that the child could not breast-feed her mother, but this referent is active in the situation described, and this makes it possible to describe this situation in a simplified way without specifying the roles of the referents.

Such meanings are of typological interest as they manifest clear-cut semantic oppositions and they happen to be attested in other unrelated languages; the parallel to (53) is Ancient Greek (56a) (Dvoreckij 1958: 1035, 342) and to (55) it is Ancient Chinese (57) (Jaxontov, forthcoming):

- (56) a. *daneidzo* ‘to lend someone money’ → *daneidzomai* ‘to borrow money from someone’. (the reciprocal meaning is also sometimes expressed by the middle inflection:
 b. *loidorēō* ‘to scold somebody’ → *loidorēmai* ‘to scold each other.’)

The middle inflection in Ancient Greek expresses reciprocity and the competitive meaning in a very limited number of cases.

- (57) *Yàn qué ... zǐ mǔ xiāng bǔ yě* (*xiāng* = REC; cf. *xiāng suí* ‘to follow each other’)
 lit. ‘Swallows and sparrows ... children and mothers feed each other.’

It is but natural that it is only mothers that feed their younglings.

As to the imitative meaning (see (54)), I fail to find it on a reciprocal marker in other languages; nevertheless, this meaning can be expected due to a certain associative link with the reciprocal meaning, as it denotes a situation with two pseudo-symmetrical participants, one who is being imitated and the other who imitates.

The pseudo-reciprocal “meaning” occupies a special place: the point is that this meaning is probably unrelated to the development of polysemy of reciprocal markers as it is registered in Chinese, where the reciprocal pronoun *xiāng* is monosemous. Therefore it is not quite correct to regard “pseudo-reciprocal” as a special meaning like the imitative or the converse or the sociative. Most likely, this is simply a special extended use of the reciprocal function. This use is somewhat similar to the “pseudo-inclusive” use of the 1st p. plural pronoun in expressions such as *And now we shall put on this pretty dress* (mother to daughter).

7.1.2. Productive secondary meanings

Secondary meanings may be productive and represented by numerous enough derivatives, as, for instance, the absolutive meaning in Tatar, numbering a few dozens

of derivatives (see section 3.4 above), or the competitive meaning in Karachay-Balkar, numbering at least 40 derivatives. They may even achieve grammaticalization, having become inflectional markers on an unlimited number of verbs, as is the case with the 3PL meaning in Kirghiz.

Needless to say, a Turkic language may have forms in *-š* (*-s*) with unproductive and productive secondary meanings.

Most likely, the meanings of this kind may have developed or become productive during the development of the individual Turkic languages. The following meanings deserve special mention.

7.2. The 3PL meaning of the suffix *-š* in Kirghiz

The suffix *-š* functions in this case as an agreement marker, i.e. as an inflection (though an optional one). This usage is due to the coincidence of the 3SG and 3PL verb forms which have zero marking in Kirghiz. The other personal forms (1SG and 1PL, 2SG and 2PL) have sharply distinct special person-number markers each. The suffix *-š* occupies its usual place in the verb form, both in its reciprocal and 3PL functions: it precedes the tense marker, while other agreement markers follow the tense markers. Compare (I owe the examples below to T. Abdiev, p.c.):

(58)	Singular	Plural
1p	<i>at-ti-m</i>	<i>at-ti-k</i>
2p	<i>at-ti-ŋ</i>	<i>at-ti-ŋar</i>
3p	<i>at-ti-Ø</i>	<i>at-ti-Ø</i> (<i>at-iš-ti</i>)

Due to the absence of the sociative in modern Kirghiz, the suffix *-š*, when used in the 1PL and 2PL forms, can be interpreted as reciprocal only (see (59a)). Needless to say, I have in mind cases when the lexical meaning of the base and/or construction allows the reciprocal interpretation; otherwise the form is ungrammatical (see (59b), where the direct object prevents reciprocal interpretation and the plural interpretation is ruled out by the 1st person).

- (59) a. *Biz at-iš-ti-k.*
 we shoot-REC-PAST-1.PL
 ‘We fired at each other.’ (*-iš* = REC)
 b. **Biz dušman-dī at-iš-ti-k.*
 we enemy-ACC shoot-REC-PAST-1PL (cf. (59d))

In the case of 3PL forms, this suffix on two-place base verbs allows both interpretations, as a reciprocal and a 3PL marker (see (59c)). However, if the syntactic structure of the transitive base construction is retained, the reciprocal interpretation is ruled out and the suffix is plural in meaning; cf. (59d):

- c. *Alar at-iš-ti-Ø.*
 they shoot-REC/3PL-PAST-3
 i. 'They fired at each other.' (-iš = REC; -Ø = 3PL)
 ii. 'They fired at somebody.' (-iš = 3PL)
- d. *Alar dušman-dī at-iš-ti-Ø.*
 they enemy-ACC shoot-3PL-PAST-3
 i. *'They fired at each other.' (-iš = REC; -Ø = 3PL)
 ii. 'They fired at the enemy.' (-iš = 3PL)

Possible, though somewhat unusual, is the simultaneous use of both markers in succession (see (59e)). In causative constructions derived from reciprocals the plural marker *-iš* follows the derivational marker (see (59f)).

- e. *Alar at-iš-iš-ti.*
 they fire-REC-3PL-PAST
 'They fired at each other.' (-iš- = REC; -iš- = 3PL)
- f. *Alar ... at-iš-tir-iš-ti.*
 they fire-REC-CAUS-3PL-PAST
 'They made somebody fire at each other.' (-iš- = REC; -iš- = 3PL)

Also possible is the ambiguity between the assistive and 3PL meanings:

- (60) a. *Alar čop tamī-š-ti.*
 they hay cart-REC/3PL-PAST
 i. 'They helped someone cart hay' ii. 'They carted hay.'
- b. *Alar čop tamī-š-iš-ti.*
 they hay cart-REC-3PL-PAST
 'They helped someone cart hay.'

This marker may also denote the 3PL meaning on converbs. This happens only in those cases when a converb is related to a 3PL subject:

- (61) *čunaŋda-š-īp kel-iš-e-t biri-n-biri teb-iš-e-t.*
 press.ears-3PL-CONV come-3PL-PRES-3 each-other kick-REC-PRES-3
 'They (= horses) approach each other pressing their ears, kicking each other.'

For more details see Nedjalkov (2003b: 205-207).

Among other Turkic languages, this 3PL usage of the reciprocal marker is also characteristic, though to a lesser degree, of the areally adjacent Uzbek and Kazakh languages. It has been noted in the literature that this usage of the suffix *-š* is also attested in Ancient Turkic (see, among others, Sevortjan 1962: 355; Kondrat'ev 1970: 25; and especially Blagova 1976: 46-59). However, judging by the cited Ancient Turkic examples, the suffix *-š* may also be interpreted as sociative.

The reciprocal marker in the function of the PL marker also occurs, for instance, in Samoan (Churchward 1951: 77, 78); cf.:

- (62) *gagana* ‘to speak (of one person)’
 → *fe-gagana-a* ‘i’ ‘to speak (of two or more persons)’
 (cf. reciprocal use:)
ilo ‘to see’ → *fe-ilo-a* ‘i’ ‘to see each other.’

7.3. The competitive meaning in Karachay-Balkar

7.3.1. Introductory remarks

The competitive meaning can be defined as follows: “to try to surpass each other in some activity”. As we see, it contains the reciprocal component of meaning. In those Turkic languages where it is registered, the competitive meaning may have a broad and/or varied derivational base: competitiveness may derive from intransitives and transitives; cf. Kirghiz:

- (63) a. *taskakta-* ‘to trot fast (of horses)’
 → *taskakta-š-* ‘to compete in horse trotting races’
 b. *tart-* ‘to pull, to drag’
 → (*ulak*) *tart-iš-* ‘to compete in goat-pulling (of riders).’

The semantic change may be individual, i.e. with an individual semantic relation with the base; cf. Tatar and Tuvan respectively:

- (64) a. *yar-* ‘to chop, saw’ → *yar-iš-* ‘to compete’
 b. *či-* ‘to eat something’ → *či-š-* ‘to compete.’

And sometimes, derivation of a reciprocal occurs via lexicalization; cf. Karachay-Balkar and Kirghiz respectively:

- (65) a. *ayt-* ‘to speak’ → *ayt-iš-* i. ‘to speak to each other’
 ii. ‘to try to surpass each other in talking’ iii. ‘to compete in wit’
 b. *ayt-* ‘to speak’ → *ayt-iš-* i. ‘to speak to each other’
 ii. ‘to compete in improvisation (about folktale narrators).’

There are two main types of derivatives which denote the following:

1) competition *per se* (“non-specified” competition; cf. Kirghiz *žeŋ-* ‘to win’ → *žeŋ-iš-* ‘to compete, try to win’), in which case the activity the participants compete in is expressed by a dependent complement (cf. Tuvan *tivizik-ka či-š-* <riddle-DAT eat-REC> ‘to compete in asking riddles’), or

2) both the competition and the activity in which the participants compete (“specified competitive”; cf. Kirghiz *at-* ‘to shoot’ → *at-iš-* ‘to compete in shoot-

ing'). Languages may differ in the productivity of "specified" competitiveness, "non-specified" being usually very limited in number (generally, three at the most).

2a) If the competitive meaning is productive, the marker can form a respective derivative from practically any base verb (or at least many bases) for which one can imagine the situation of contest (including *ad hoc* situations; cf. Karachay-Balkar *sava-* 'to milk' → *sava-š-* 'to compete in milking').

2b) If the competitive meaning is non-productive, the derivatives, being far from numerous (generally 4-10 items), usually denote conventional contests practiced by the native speakers. In this case derivation of competitiveness is lexically restricted.

In both types of competitiveness, there are derivatives from bases denoting actions that naturally involve competition to a greater or lesser degree (see (63a), (66a), (69a), (68a, c)) or an action which is a competition itself (see (70) and (71)).

Among the Turkic languages, the competitive meaning is lacking, for instance, in Azerbaijani, Turkish and Gagauz (Sevortjan 1962: 533). Karachay-Balkar is prominent among Turkic languages as one whose "specified" competitiveness are highly productive. For comparison, languages with unproductive "specified" competitiveness will be mentioned in 7.3.3.

7.3.2. Productive competitiveness: evidence from Karachay-Balkar

In Karachay-Balkar, derivatives with the "specified" competitive meaning can be formed from a variety of both transitive and intransitive verbs. Note that the reciprocal meaning of the Karachay-Balkar suffix *-iš-* is unproductive. (66a) are common competitive events, while (66b) denote *ad hoc* competitive events.

- | | | | |
|---------|-------------------------|-------------------|---|
| (66) a. | <i>čab-</i> 'to run' | → <i>čab-iš-</i> | 'to compete in running' |
| | <i>mara-</i> 'to shoot' | → <i>mara-š-</i> | 'to compete in shooting.' |
| b. | <i>artī-</i> 'to peel' | → <i>artī-š-</i> | 'to compete in potato peeling' |
| | <i>tig-</i> 'to sew' | → <i>tig-iš-</i> | 'to compete in sewing' |
| | <i>tükür-</i> 'to spit' | → <i>tükür-üş</i> | i. 'to spit at each other' |
| | | | ii. 'to try to surpass each other in spitting farther.' |

Here is an example from Balkar folklore (Boziev 1962: 60):

- (67) *Zü, qart kiši üfgür-üş-ey-ik.*
 come.on old man blow-REC-IMP-1.PL
 'Come on, old man, let's compete in which will blow the other off.'

For more details see Nedjalkov (2002:61-64).

7.3.3. Unproductive competitiveness: evidence from other languages

Three main cases deserve to be mentioned, all of them distinguished with a degree of simplification.

being reciprocal. Cf. the following examples from Buryat (Čeremisov 1973: 512), Khmer (Dictionnaire 1962) and Chukchi respectively:

- (71) a. *ürdi-* 'to overtake' → *ürdi-lde-* 'to compete'
 b. *ce:ŋ* 'to overcome' → *prɔ-ce:ŋ* 'to compete'
 c. *yala-* 'to overtake sb' → *yala-čet-* 'to compete.'

3) There are derivatives from the bases meaning 'to overcome sb in some action/activity', and their acquired meaning may be either

(a) 'to compete in the activity denoted by the stem' (cf. the meaning (i) in (72a, b, c)) or

(b) 'to compete' in the generalized unspecified sense only (cf. the meaning (ii) in (72a, b, c)).

Note that the meaning of the base verb generally implies a similar action of the second human participant: a sentence like *A is outrunning B* implies that B is running, too.

Here are examples from Yakut, Tuvan and Tatar respectively:

- (72) a. *kuot-* 'to outrun sb' → *kuot-us-* i. 'to compete in running' ii. 'to compete'
 b. *kag-* 'to overcome sb in wrestling' → *ka-aš-* i. 'to overcome each other by turns' ii. 'to compete'
 c. *uz-* 'to outrun' → *uz-iš-* i. 'to compete in running' ii. 'to rival, try to overstrip sb in sth.'

A typologically interesting semantic parallel is observed in Bulgarian where the competitive meaning is expressed by the reflexive-reciprocal marker (cf. (29)) on verbs that denote overcoming (cf. the meaning of the base verbs in (73)), e.g. 'to win', 'to overtake', which is expressed by means of the prefix *nad-* 'over'. Thus, the meaning of competition is determined by the prefix in the first place. Cf. (Ivanova 1973: 171-179):

- (73) a. *A nadpiva B* + *B nadpiva A* = *A i B se nadpivat*
 'A outdrinks B' + 'B outdrinks A' = 'A and B compete in drinking'
 (lit. ...outdrink each other).

A few more examples:

- b. *Te me nadbjagvat* 'They outrun me'
 → *Te se nadbjagvat* 'They compete in running'
 c. *Te me nadpluvat* 'They overtake me in swimming'
 → *Te se nadpluvat* 'They compete in swimming'
 d. *Te me nadxitrjat* 'They outwit me'
 → *Te se nadxitrjat* 'They compete in outwitting each other'

- e. *Te me nadžatvat* 'They overtake me in reaping'
 → *Te se nadžatvat* 'They compete in reaping.'

There are at least 25 such derivatives, while other Indo-European languages which use reflexive-reciprocal markers lack such derivatives. An exception is Serbian, another South-Slavic language, where at least ten such derivatives, also with a prefix *nad-*, are registered (Tolstoy 1970: 274-276); cf.:

- (74) a. *nadgovariti* 'to win in an argument'
 → *nadgovariti se* 'to compete in arguing'
 b. *nadskakivati* 'to win in jumping'
 → *nadskakivati se* 'to compete in jumping'
 c. *nadlagivati* 'to overcome in lying (slandering)'
 → *nadlagivati se* 'to compete in lying.'

Two such synonymous derivatives with the prefix *před-* in the analogous meaning are registered in Czech (Melnikov et al. 1968: 586, 587):

- (75) a. *předháněti* 'to outrun'
 → *předháněti se* i. 'to race (with) one another' ii. 'to compete'
 b. *předbíhati* 'to outrun'
 → *předbíhati se* 'to race (with) one another (about children)'

In conclusion of this section, I will note that although the Turkic languages have preserved the reciprocal suffix, they display significant variation not only with respect to the main meanings but also in the domain of secondary meanings. (I am grateful to S. Say and A. Letučij for their critical remarks on the early version of the section on competitiveness.)

8. Spatial reciprocals. The meaning of joining

Spatial transitive reciprocals, like Yakut *baay-* 'to tie two things together' in (76d), crucially differ from proper reciprocals semantically (cf. the pairs of derivatives in (78a) and (78b)), as their reciprocal arguments are objects denoting patients manipulated by the subject referent(s). Despite obvious differences between them, the fact that in many languages both types of reciprocals share the same markers, affixal or pronominal, shows their semantic affinity: both types of reciprocals imply symmetrical arguments.

Prototypical transitive spatial reciprocals are derived from three-place transitives as a result of co-reference of both objects (usually a direct and nondirect object). The non-direct object, though being a spatial argument, is not an adverbial constituent proper, because it is implied by the lexical meaning of the predicate. Generally, it denotes the goal or destination of the direct object referent.

Cross-linguistically, there are at least four types of marking for spatial reciprocals: 1) affixes with locative meanings (see 8.2); 2) reciprocal affixes (8.3); 3) a causative affix attached to anticausatives (8.4); 4) reanalyzed combination of a reciprocal and a causative affix (8.5). The latter two cases are of primary interest because they are represented in Turkic languages. Below, all four types of marking are illustrated. Their discussion is preceded by that of unmarked (= lexical) spatial reciprocals with which a reciprocal pronoun may be optional (8.1). As is shown below, a language may employ several types of spatial reciprocals.

Marked transitive spatial reciprocals are subject to lexicalization: if unmarked three-place transitives of the type *baay-* ‘to tie two things together’ in (76a) can be used as two-place spatial reciprocals (see (76d)), then, on the other hand, marked two-place spatial transitives also begin to be used as three-place transitives.

8.1. Unmarked spatial reciprocals

In this case one and the same verb functions both as a three-place with the meaning of adding or joining one object to another (which may be different or of the same class; cf. *to stick a sheet of paper on the wall* and *to stick a sheet of paper to another*) and as a two-place with the meaning of joining two objects of the same class (cf. *to stick two sheets of paper together*). Compare Yakut *baay-* i. ‘to tie something to something’, ii. ‘to tie two things together’. Here are examples (N. M. Artem’ev, p.c.)

- (76) a. *Kini maŋan kuru qara kur-ga baay-da-Ø.*
 s/he white belt black belt-DAT tie-PAST-3SG
 ‘He tied the white belt to the black belt.’
 = b. *Kini kara kuru maŋan kur-ga baay-da-Ø.*
 s/he black belt white belt-DAT tie-PAST-3SG
 ‘He tied the black belt to the white belt.’
 = c. *Kini maŋan kuru ikki qara kuru baay-da-Ø.*
 s/he white belt and black belt tie-PAST-3SG
 ‘He tied the white belt to the black belt.’
 = d. *Kini ikki kuru [beye-beye-leri-ger] baay-da-Ø.*
 s/he two belt each.other-POSS.3PL-DAT tie-PAST-3SG
 ‘He tied two belts [to each other] together.’

In the translation of (76d) the word *together* is used. It should be kept in mind that this English adverb, like its counterparts in many languages (for instance, Yakut *biirge* and Tatar *berg*□; cf. *berg*□ *kuš-* lit. ‘to join something together’), has at least two meanings, viz. sociative of *joint action* and spatial-reciprocal, that of (making) *spatial contact* (cf. Lasersohn 1990: 179-206) or, figuratively, mental contact (see (84c)).

8.2. Affixes with locative meanings

Such affixes are attested in many languages, among others, in languages which do not possess affixal reciprocal markers. Generally, they belong to the sets of numerous (at least 15-20) affixes with various locative meanings. Here is an example from Russian:

- (77) a. *On pri-kleil A k B* — *b. On s-kleil A i B*
 ‘He pasted A to B’(three-place) ‘He pasted A and B together’ (two-place).

8.3. Reciprocal affixes

As just mentioned, in numerous languages, spatial reciprocals can be formed with the same means as reciprocals proper, as is shown in the Kabardian (78a) (Apazhev et al. 1957: 99, 106) and Swahili (78b) (Ovir 1896: 258) examples below:

- (78) a. *guəun* ‘to shout at sb’ → *zə-guəun* ‘to shout at each other’
 klərədən ‘to sew sth onto sth’ → *zə-klərədən* ‘to sew two pieces together’
 b. *-nen-a* ‘to speak’ → *-nen-an-a* ‘to speak with each other’
 -fung-a ‘to join’ → *-fung-an-a* ‘to join something together.’

This device does occur in the Turkic languages, but it is extremely rare. In contrast to Kabardian, where the number of reciprocals of type (78b) reaches 150, in Kirghiz only two such derivatives are registered, one of them functioning both as a spatial transitive reciprocal and as an intransitive anticausative (taken from Judaxin 1, 1965: 326, 312-313; 443):

- (79) a. *kak-* ‘to knock (once)’
 → b. *kag-ĩš-* i. ‘to knock two things against each other’ spatial reciprocal
 ii. ‘to collide’ anticausative
 (80) a. *ege-* ‘to saw’, ‘to grind’
 b. *ege-š-* ‘to rub one thing against the other.’

8.4. A causative affix attached to anticausatives

The term anticausative is applied to the member of the semantic causative opposition that is non-causative in meaning and formally marked: this is the member denoting a process the subject referent undergoes without any exterior force (see Nedjalkov & Silnicky 1969 (1973): 20). Anticausatives can be derived not only by means of reciprocal markers but also (and even more productively) by reflexive and passive markers producing, not infrequently, synonymous derivatives. Here is such an example from Yakut (Nedjalkov 2003a, 7: 85, 99-101):

- (81) a. *silimnee-* ‘to paste sth and sth together’
 → b. *silimne-s-* ‘to get pasted together’
 c. *silimne-n-* ‘to get pasted together.’

Anticausatives derived by means of reciprocal markers are rather widespread among languages; they are attested, among others, in Zulu (Dammann 1954: 164), Muna (van der Berg 1989: 206, 314) and Mbay (Keegan 1997: 66). Here are examples from Mbay (ibid., p. 66) with the reciprocal-sociative marker and from Lithuanian with the reflexive-reciprocal marker respectively:

- | | | | |
|---------|---------------------------|----------------------------------|---------------|
| (82) a. | <i>tōl-n nāā</i> | ‘they killed each other’ | reciprocal |
| | <i>gō-n nāā</i> | ‘they laughed together’ | sociative |
| | <i>āndə nāā</i> | ‘become entangled’ | anticausative |
| b. | <i>jie ap-si-rengė</i> | ‘they dressed [themselves]’ | reflexive |
| | <i>jiedu ap-si-kabino</i> | ‘they (two) embraced each other’ | reciprocal |
| | <i>durys at-si-darė</i> | ‘the door opened’ | anticausative |

Across languages, reflexive-reciprocal markers are more productive as anticausative markers than are reciprocal-sociative markers. For instance, among Turkic languages the number of anticausatives with reciprocal-sociative markers does not exceed 20 or 30, while in Lithuanian the number of anticausatives with the reflexive-reciprocal marker is about 800 (Geniušienė 1987: 97).

The reciprocal-causative derivatives can be more or less close in meaning to the base transitives; cf. Kirghiz (Judaxin 1965, 2: 2, 304) and Tatar (Tatar-Russian dictionary 1966: 543):

- | | | | |
|---------|----------------------|---|----------------------------|
| (83) a. | <i>ula-</i> | ‘to join sth to sth’, ‘to join the ends of sth and sth’ | |
| → b. | <i>ula-š-</i> | ‘to join sth/sb’ | anticausative |
| → c. | <i>ula-š-tür-</i> | ‘to tie sth and sth together’ | causative of anticausative |
| (84) a. | <i>tiḡlī-ū</i> | i. ‘to make equal to sth’, ii. ‘to compare’ | |
| → b. | <i>tiḡlī-š-ū</i> | ‘to become equal’ | anticausative |
| → c. | <i>tiḡlī-š-tür-ū</i> | ‘to compare’ | causative of anticausative |

Some such pairs, like (a) and (c) in these examples, are sometimes used as synonyms in Russian-Turkic dictionaries to translate one and the same verb; for instance, (84a) and (84c) are used as equivalents of the Russian verb *sravnit’* ‘to compare’ in Ganiev (1997: 588).

Combinations of a reciprocal and a causative suffix tend to turn into markers of joining together of two objects. In this respect it is significant that although the meaning ‘to knock one thing against another’ can be expressed by means of the suffix *-š* alone (see translation (i) in (85b)=(79b)), Kirghiz also derives from the anticausative with the meaning ‘to collide’ (see translation (ii) in (85b)=(79b)) one more spatial reciprocal by means of the causative suffix, viz. (85c):

- | | | | |
|---------|--------------------|---|--------------------|
| (85) a. | <i>kak-</i> | ‘to knock (once)’ | |
| → b. | <i>kag-iš-</i> | i. ‘to knock one thing against another’ | spatial reciprocal |
| | | ii. ‘to collide’ | anticausative |
| → c. | <i>kag-iš-tür-</i> | ‘to knock one thing against another.’ | |

In the case of verbs denoting joining, the first and the third members of the derivational chains are close in meaning; therefore, verbs of type (c) may oust the base verb, or they may undergo lexicalization easily, thus breaking the synonymy of the members named.

Besides chains like (84), there are triplets in Turkic languages, for example in Tatar, in which the standard semantic relations between the pairs are shifted to a greater or lesser degree (though the semantic relation between (a) and (b) is discernible). This concerns, in the first place, the relations in pairs (a)-(b). Compare (*Tatar-Russian dictionary* 1996: 241, 242; 698, 699; 548):

- | | | |
|---------|-----------------------|--|
| (86) a. | <i>kat-</i> | i. 'to twist (threads)', ii. 'to flavour (e.g. with double cream)' |
| | b. <i>kat-ış-</i> | 'to get mixed (up)' |
| | c. <i>kat-ış-tır-</i> | 'to mix something up.' |
| (87) a. | <i>yab-</i> | 'to cover' |
| | b. <i>yab-ış-</i> | 'to stick to something' |
| | c. <i>yab-ış-tır-</i> | 'to stick, glue something to something.' |
| (88) a. | <i>tot-</i> | 'to hold, grasp' |
| | b. <i>tot-aş-</i> | 'to join to something (vi)' |
| | c. <i>tot-aş-tır-</i> | 'to join something to something.' |

In the following cases there are only forms (b) and (c), base (a) being non-existent (the component *-ş* is identified as a reciprocal marker by the meaning of verbs (b)). Compare (*ibid.*, pp. 240, 38):

- | | |
|---------|---|
| (89) a. | no transitive base verb |
| | b. <i>katn-aş-</i> 'to get mixed (up)' |
| | c. <i>katn-aş-tır-</i> 'to mix something up' |
| (90) a. | no transitive base verb |
| | b. <i>arala-ş-</i> 'to get mixed (up)' |
| | c. <i>arala-ş-tır-</i> 'to mix something up.' |

The data of this kind cited above may lead us to interpret the *-ş-tır-* complex of suffixes as a marker of derived verbs of joining.

8.5. Reanalyzed combination of a reciprocal and a causative affix

This combination may function as a single suffix, which in the prototypical case changes (potentially) three-place transitives into two-place transitives, i.e. in this case, like in proper reciprocals, valency decrease takes place (see, however, (93d)). It can be attached immediately to the transitive base: an "intermediate" form with the reciprocal suffix is either absent (mostly due to the meaning of the base) or expresses some other, e.g. sociative or assistive, rather than the anticausative meaning. And these meanings of the intermediate form do not correspond semantically to that of the derivative with the reanalyzed reflexive-causative suffix. Here are Kirghiz examples (from Judaxin (1965, 1: 96-97) and T. Abdiev (p.c.) respectively):

- (91) a. *bayla-* 'to tie something to something' three-place
 b. no anticausative
 → c. *bayla-š-tür-* 'to tie (e.g. horses) together' two-place
 (cf. d. *bayla-š-* 'to tie something together (= with sb)')
- (92) a. *kuy-* 'to pour something into something' three-place
 b. no anticausative
 → c. *kuy-uš-tur-* 'to pour from several vessels into one' two-place
 (cf. d. *kuy-uš-* 'to help to pour').

Here are a few more analogous examples (T. Abdiev, p.c.) with derivative (d) omitted (identical translations in some pairs below do not rule out slight differences in meaning and the range of meanings of the forms):

- (93) a. *kotor-* 'to move horses from one pasture to another'
 kotor-uš-tur- 'to move many horses from the whole pasture to one place'
 b. *sal-* 'to put something into something'
 sal-iš-tür- 'to put several things one into another'
 c. *tüy-* 'to tie some things into a bundle'
 tüy-üš-tür 'to tie (e.g. several bundles) together'
 d. *žiy-na-* 'to gather something'
 žiy-na-š-tür- 'to gather something.'⁸

⁸ It is interesting to note that in Turkic languages there is a homonymous suffix in which the causative component also lacks the causative meaning; the meaning of this complex suffix is iterative; cf. Kirghiz *sura-* 'to ask' → *sura-š-tür-* 'to question again and again' (Judaxin 1965, 2: 166); Tatar *yama-* 'to patch' → *yama-š-tür-* 'to patch many times'. The suffix *-š-tür-* is synonymous to the iterative suffix *-gula-/kala-/...* and they frequently co-occur in either order; cf.: *at-* 'to shoot' → *at-kala-* 'to shoot from time to time', *at-kala-š-tür-* (same); *boraula-* 'to bore, drill' → *boraula-š-tür-gala-* 'to bore, drill many times' (Tatar-Russian dictionary 1966: 709, 43, 78; see also Il'minskij 1863: 15-18 and Severtjan 1962: 356-358). In this suffix, and also in the homonymous suffix in (91c), (93), etc., the common component of multiplicity may be discerned: multiplicity of actions in the former and multiplicity of objects in the latter. It may be relevant to mention that in Tuvan the suffix *-š-tür* in combination with the suffix *-gula-/kula-/...* materially identical with the iterative suffix is used in the meaning of comparison (as is known, comparison is a reciprocal concept); e.g.: *sogun* 'arrow' → *sogun-gula-š-tür* 'like an arrow', *oor* 'thief' → *oor-kula-š-tür* 'like a thief, in a stealthy manner'. In the Todža dialect of Tuvan, the component *-š-* appears in one more complex suffix which also contains *-š-tür*, viz. *-šila-š-tür*; cf.: *balik* 'fish' *balik-šila-š-tür* 'like a fish, in a fishlike manner'. The first component of this complex suffix also occurs as an independent suffix with the attached component *-y*: *balik-šilay* 'like a fish' (Čadamba 1974: 95). It is not clear if the component *-š-* in this complex suffix is related to the reciprocal suffix.

Analogous Tatar examples (*Tatar-Russian Dictionary* 1966: 85, 86, 630):

- (94) a. *buta-* ‘to mix up’
 buta-š-tür- ‘to mix up’
 b. *čal-ıp bəylə-* ‘to tie something criss-cross’ (-*ıp* = CONV, *bəylə-* ‘to tie’)
 čal-iš-tür-ıp bəylə- ‘to tie something criss-cross.’

Forms superficially and semantically analogous to Kirghiz *bayla-štır-* are attested in Japanese, e.g. (Hasselberg 1996: 46, 47):

- (95) a. *har-u* ‘to paste something to something’
 → b. *hari-aw-ase-ru* ‘to paste sth and sth together.’
 (96) a. *nu-u* ‘to sew sth’
 → b. *nui-aw-ase-ru* ‘to sew two things together.’

Here, *-aw* (allomorph *-a*) is a reciprocal suffix and *-ase-* is a causative suffix; cf. (97a) and (97b). In (95b) and (96b) the complex *-aw-ase-* functions as a single morpheme, because in Japanese, causatives cannot derive from reciprocals (and, besides, there are no reciprocal forms of the verbs *haru* (95a) and *nuu* (96a), i.e. the forms **hari-a-u* and **nui-a-u* are non-existent), i.e. formations like (97c) are incomprehensible to native speakers:

- (97) *damas-u* ‘to deceive somebody’
 → a. *damasi-a-u* ‘to deceive each other’
 → b. *damas-ase-ru* ‘to make somebody deceive somebody’
 c. **damasi-aw-ase-ru* (intended meaning) ‘to make someone deceive each other.’

This raises the question: where do forms (95b) and (96b) come from? As a matter of fact, these forms are compounds of two verbs, the base verb followed by the verb *aw-ase-ru* i. ‘to join’, ii. ‘to coordinate’, iii. ‘to compare’ (there are about 80 such compounds in Japanese; see Himeno 1982: 17-52; Hasselberg 1996: 46-51). The latter verb *aw-ase-ru* is the causative form of the verb *a-u* ‘to meet’, ‘to come up’, i.e. the verb that was the source of the reciprocal suffix *-a/-aw*. Incidentally, some linguists who are themselves native speakers consider reciprocal derivatives as compounds with the verb *a-u* as well (Nishigaushi (1992: 157) calls it “the reciprocal verb *-aw*”). But in other publications the component *-a/-aw* is regarded as a suffix (derived from the verb *au* ‘to meet’; Iwasaki 2002: 144).

The Japanese examples in (95) and (96) as a precise formal (though not morphological) and semantic counterpart of the Turkic material in (91)-(93) reveal the same tendency to derive two-place spatial reciprocals from three-place bases. (My thanks to M. Shibatani for his advice on the Japanese data.)

9. Conclusions

In summary, the following issues discussed above should be stressed.

The Turkic reciprocal suffix can decrease, preserve and increase the valency of the verb depending on the meaning of the derivative: reciprocal, sociative, comitative or assistive (see section 2). A specific feature of the polysemy of this marker is the assistive meaning. The Turkic languages (though not all of them) seem to be the only family of languages, with the exception of the areally adjacent Mongolic languages (see (26)), whose reciprocal marker displays this particular pattern of polysemy covering these four meanings.

With respect to the two main types of reciprocals, with pronominal and affixal markers, the Turkic languages have analogues among other languages and thus differ from others having either only pronominal or only affixal reciprocals (see 1.2). These two types of reciprocals may have their preferential or obligatory semantic domains of usage, alongside their possible pleonastic use. There is also an areal distribution of these two types of reciprocals: in the western part of the Turkic area pronominal reciprocals are prevalent and verbal reciprocals have lost their productivity. The loss of the productivity of verbal reciprocals is observed in some languages of both the Oguz and the Kipchak groups (see section 5). In the eastern Turkic area, on the contrary, the reciprocal meaning of the suffix *-s* has preserved productivity, as has the assistive meaning, which is lacking in the Turkic languages with unproductive reciprocal meaning.

Interestingly enough, the unproductivity of the reciprocal meaning in the *western area* of the Turkic languages is paralleled by unproductivity of this meaning in the neighbouring *eastern area* of Indo-European languages which have a reflexive-reciprocal marker (see section 6).

Differences between the Turkic languages are observed not only in the set and/or productivity of the four main meanings of the reciprocal suffix, but also in the set of secondary meanings. Some languages display idiosyncrasies, such as the unexpected productivity of the competitive meaning in Karachay-Balkar (see 7.3). Another idiosyncrasy is the 3PL agreement function of the reciprocal marker in Kirghiz (see 7.2). The differences also concern such less prominent meanings as, for instance, the anti-causative, converse, imitative and pseudo-reciprocal use of the reciprocal marker (section 7.1.1).

The analysis of the polysemy of the reciprocal markers, though fragmentary, reveals a rather varied picture in the Turkic languages selected here. A comparison with non-Turkic languages shows some features of the Turkic reciprocal markers in a broader perspective. Certain meanings of the reciprocal marker attested in some Turkic languages and lacking in others, find parallels in genetically unrelated languages with a different type of basic polysemy. On the whole, the Turkic data may contribute to the investigation of the typology of the polysemy of reciprocal markers,

i.e. to establishing the limits of variation in the domain of polysemy cross-linguistically.⁹

It is clear from the above that we cannot speak of *one type* of reciprocal markers and the limits of variation of its polysemy, three basic types being distinguished, the reflexive-reciprocal, reciprocal-sociative and iterative-reciprocal (see section 3), and the polysemy of each type of markers being determined to a significant degree by their origin. Therefore, these three types should be investigated separately. On the other hand, all three types can share some meanings. Their source is mostly the intransitivizing function of the markers (e.g. the absolute meaning represented in Tatar and Bashkir and absent in Karachay-Balkar and Khakas (see 3.4) is productive not only in the areally adjacent Russian, but also in some Bantu languages (see example (40)). Another example may be the complex reciprocal-causative marker *-štir* which derives two-place spacial transitive reciprocals from three-place verbs (section 8.5): even this special device has a typological parallel at least in one language, viz. Japanese.

To repeat, a researcher of the typology of reciprocal markers and their polysemy can find extensive material in the Turkic languages.

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⁹ Compare: "We have reason to assume that at least for some grammatical categories in different languages there exists a certain limit [...] of possible polysemy. [...] According to the range of various meanings expressed by comparable forms in them, individual languages differ from one another and can be subjected to classification" (Nedjalkov 1964: 301-302).

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