Ditransitives in the Tuu family
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"Ditransitives are defined here as a construction consisting of a (ditransitive) verb, an agent argument (A), a recipient-like argument (R), and a theme argument (T)"
(Malchukov, Haspelmath and Comrie 2007)

1 Introduction

1.1 Non-Khoe Khoisan

+ Non-Khoe Khoisan as a "language type" with partially marked morphosyntactic structure
(Güldemann and Vossen 2000: 109-10, Güldemann 1998, 2004, 2006), some basic features:
    a) SVO clause order, head-initial noun phrase except head-final genitives
    b) little morphology; importance of constituent order, particles, analytical constructions
    c) verb serialization and verb compounding
    d) special type of relational gram as a default marker of valence-external participants
    e) complex and irregular number marking in both nominal and predicative expressions, including stem suppletion
    f) special type of gender system
    g) noun-like syntactic behavior of pronouns
    h) inclusive/exclusive distinction in pronominal system

+ quite strict syntactic template of basic clause (subscript n = possible multiple occurrence):

[SUBJECT - PREDICATION.OPERATOR$_n$ - ADVERB - VERB$_n$ - OBJECT - PREPOSITION+ADJUNCT$_n$]

- virtually all verbs with maximal valence of one non-subject participant
- preponderance of "nuclear"/"root serialization" (cf. Olson 1981, Foley and Van Valin 1984)
- flagging by very few semantically dedicated prepositions (only COM/INSTR recurrent), but rather a default marker taking care of most postverbal participants outside the valence of the verb > called here "multipurpose oblique (MPO)"
> semantically very broad: most semantic roles except those typically expressed by the subject (agent, experiencer, force) > patients, all kinds of obliques and adverbials
> postverbal nominal encoding (by position and flagging) more sensitive to animacy and information structure than to semantic roles

+ possibly most extreme case in Tsumkwe Juǀ'hoan [Southeast Ju] with only one multi-participant construction:

[VERB$_n$ - OBJECT - *kò*+ADJUNCT$_n$]
*[[VERB - OBJECT]$_n$ - PREPOSITION+ADJUNCT$_n$]

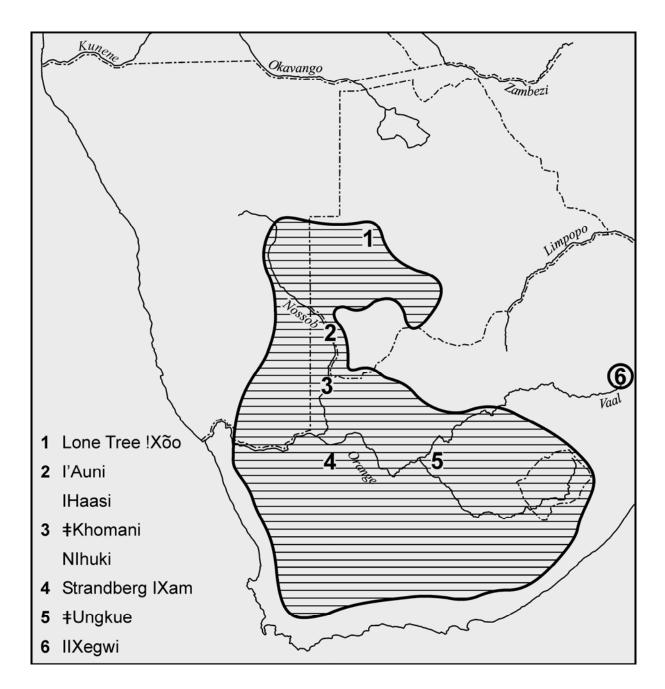(1) a. ha   kú   ‖ohm-a !aìhn kò   gǀúí
        3S   IPFV   [chop-VE$_x$ tree$_x$] MPO forest

or b. ha   kú   ‖ohm-a gǀúí   kò   !aìhn
        3S   IPFV   chop-VE$_x$ forest MPO tree$_x$
        He was chopping the tree in the forest. (Dickens 2005: 39)

- above pattern also for ditransitive expressions > secundative alignment by virtue of animacy hierarchy

(2)   dà'áma jàn ǀ'àn   ha bá   kò   màrì
       child   good give   3S father MPO money
       The good child gave his father money. (Dickens 2005: 40)

1.2 The Tuu family

+ isolate family, but with basic structure as outlined in §1.1 for Non-Khoe as a whole

+ internal classification

    Taa-Lower Nossob

      Taa (DC)   **West !Xoon**, N|u||'en[†]; N|amani[†], **'N|ohan**, **East !Xoon (1)**, Kakia[†], ...

      Lower Nossob (DC, 2)[†] |'Auni, |Haasi

    !Ui

      N//ng (DC, 3)   **N|uu**, N|huki, ‡Khomani, …

      /Xam (DC)[†]   **Strandberg (4)**, Achterveld, …

      ‡Ungkue (5)[†]

      //Xegwi (6)[†]

    Notes: DC = dialect cluster; † = extinct; 1-6 = corresponding number in map; **bold** available data

Figure 1: Preliminary internal classification of Tuu

1 Lone Tree !Xõo
2 l'Auni
   IHaasi
3 ‡Khomani
   NIhuki
4 Strandberg IXam
5 ‡Ungkue
6 IIXegwi

2 |Xam (Strandberg variety)

2.1 Structure of basic three+-participant construction

+ 1st postverbal valence-internal slot unmarked, all other slots marked by multipurpose oblique preposition *au*:

[VERB$_n$ - OBJECT - *au*+ADJUNCT$_n$]

(3)   si   tang ǁ'ang doq'a nǀiin teen !k'waa   aa   ǀuuka
       1P.E ?PF go.and   ?   see lie hartebeest REL   dead:STAT
       we did see a dead hartebeest lying there! (Bleek and Lloyd 1911: 10-11)

(4)   !k'waa   nǀa-ng   ǀam   u'i !haun **au**   **!k'waa**   **ts'axau**
       hartebeest head-DECL take.up rise thong MPO   hartebeest eye
       the hartebeest's head removed the thong from its eye (Bleek and Lloyd 1911: 6-7)

(5)   hi-ng   ǀuengki ǀ'ee   ǁxauken **au**   **ǀoq'a**   **au**   **hin** **ǀkx'aa**
       3P-DECL be.thus enter   blood   MPO   stomach   MPO   3P   hand
       they put the blood in the stomach by their hands like this (Bleek and Lloyd 1911: 278-9)

+ involves some "expected" ditransitives

(6)   !u-koo   nǀe   ǀuii   ha   **au**   **g!aqog!ao**
       person-other   IPFV give.in.exchange   3S   MPO   poison
       the other man gives him in exchange poison (Bleek and Lloyd 1911: 282-3)

(7)   hin nǀe   ta   ǀan   **iin**
       2   IPFV QUOT PN   MPO:2
       They call it ǀan [lit.: they (class 2) say ǀan to it (class 2)] (Bleek and Lloyd 1911: 274-5)

2.2 Dedicated ditransitive construction

+ based on *aa* 'give' or, very rarely, *nǀa* 'give', with two subtypes
(I) with nouns[1] - 1st R slot and 2nd T slot without flagging > neutral double-object alignment:

[*aa* - RECIPIENT - THEME - PREPOSITION+ADJUNCT$_n$**]**

(8)   hi   se-g   nǀe   aa   hi   ǀaagen   hin
       3P IRR-?   IPFV give 3P   companion   3IA
       they will be giving it to their companion (Bleek 1956: 1)

(9)   ha   aa   !u-koo   ǁho-ǁho
       3S give   person-other   P-bag
       he gave bags to the other (Bleek and Lloyd 1911: 280-1)

(II) with pronouns (clear for 1st and 2nd person, unclear for 3rd person - 1st R slot in oblique form, 2nd T slot without flagging > indirective alignment:

[*aa ~ nǀa* - OBL.PRONOUN.RECIPIENT - THEME - PREPOSITION+ADJUNCT$_n$**]**

(10)   aa   **ki**   para koo
       give 1S.OBL   [horse other]
       give me another horse (Bleek 1956: 1)

(11)   nǀa   **ki**   ⊙hoo   ǀee
       give 1S.OBL   [branch that]
       give me that piece of wood! (Bleek and Lloyd 1911: 338-9)

(12)   ha   xo'a   kx'auki aa   **ha**   !huing   engeng ee   ǀkx'ai-ya
       3S mother NEG   give 3S.OBL? [PLANT.SP   roots   REL   abundant-STAT]
       her mother had not given her many !huing roots (Bleek and Lloyd 1911: 76-7)

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[1]   The verb *nǀa* 'give' has not yet been attested with nominal recipients.

Person		Singular		Plural	
		Unmarked	Oblique	Unmarked	Oblique
	Incl			i	hii
1st	Excl	ng	ki	si	-
2nd		a	haa	u	huu
3rd		ha(n)	?ha(n)	hi(n)	?hi(n)

Table 1: Unmarked and oblique pronouns in |Xam

+ extended to benefactives through assumed grammaticalization of *aa* to verb suffix *-(y)a*

(13) |'uhí-**ya**   !auken |ueri
      leave-BEN   children   back.bone
      leave the backbone for the children! (Bleek and Lloyd 1911: 50-1)

(14)   !o'ite   s'aang |araka   hii
      grandmother   come.and   make.warm:BEN   1P.I.OBL
      grandmother shall make a little warmth for us (Bleek and Lloyd 1911: 338-9)

(15)   ng ‡aka   haa   ha
      1S talk:BEN   2S.OBL   3S
      (which) I tell (it) to you (Bleek and Lloyd 1911: 46-7)

3 N||ng (N|uu variety)

3.1 Structure of basic three+-participant construction

+ 1st slot unmarked, all other slots marked by either of two prepositions:

$$[\textbf{VERB}_n \textbf{ - OBJECT - } \textit{ng} \sim \textit{n/a} + \textbf{ADJUNCT}_n]$$

(I) comitative-instrumental *n/a*

(16)   ng ||u   ki |kx'ae   **n|a   a**
      1S NEG have matter   COM 2SG
      I don't have anything (to do) with you.

(17)   ng ||uu !khaa   **n|a   bekersi**
      1S scoop water   INSTR   cup
      I scoop water with a cup

(II) multipurpose oblique preposition *ng* (cf. Collins 2004)

(18)   ng si   siinsinn   **ng   !haeka**
      1S IRR work   MPO   tomorrow
      I will work tomorrow

(19)   ng n||ae ‡kx'oan   **ng   kia !kx'aru a**
      1S then   hunt   MPO   that cheetah this
      I hunt (after) that cheetah

(20)   ng kx'uu ng |aeki   **ng   g|a**
      1S make   1S woman   MPO   2SG.STR
      I will make you my wife

(21)   ng ||'ng ||qann !qaa   **ng   n‡ona ‡oo**
      1S move.out stab   dead   MPO   knife   male
      I go and kill (it) with a spear

(22)   na   xa   kx'uu aan ku **ng   ku aanki**
      1S.SBJ PST   make eat   3S MPO 3S food
      I made him eat his food (Collins 2004: 182)

+ involves some "expected" ditransitives

(23) ||xaa||xaa ng **ng   n|uu-ki**
      teach   1S MPO   speak.San-NOM
      teach me the N|uu language!

3.2 Dedicated ditransitive construction

+ 1st R slot marked by suffix -*a*, 2nd T slot without flagging > indirective alignment:

[VERB$_n$ - RECIPIENT-*a* - THEME - PREPOSITION+ADJUNCT$_n$]

(24) g|a |aia   n|ng   aanki   nou   a   hu   g|oe   aa   **na**   ng   g|a   aanki
       2S.STR take   1S.STR food   now   2S   ?   also   give 1S:DAT   OBL   2S.STR   food
       You have taken my food, now give me also from your food

(25) aa   **!uuki-a**
       give   grandmother-DAT
       Give to the grandmother!

(26) aa   **ku-a**   maar   #   aa   ku   xangki   ka ||hain
       give   3H.S-DAT   but   give 3H.S   mother   P   breast
       So give him! Give the breasts of his mother!

+ unclear origin of *a*-suffix

Pronoun category	Singular Unmarked	Subject in -*a*	Dative in -*a*	Plural Unmarked	Subject in -*a*	Dative in -*a*
1st Incl				i	dya	dya
1st Excl	ng	na	na	si	sa	sa
2nd	a	a	a	u	ba	ba
3rd Human						
Weak	ha	ha	ha	hng	?	?
Strong	ku	kua	kua	kinn	(kina)	(kina)
3rd Non-human						
Weak	hi	he	(he)			
Strong	ki	kia	(kia)	kike	kika	kika
Impersonal	ǂi	ǂa	?			

   Note: (...) not yet securely attested

Table 2: Unmarked and *a*-marked pronouns in N|uu

+ a few verbs other than 'give' (some possibly with a relevant suffix -*a* on the verb itself)

(27) hng   ka   dyama   **na**   ki-ke   ng   n!oon
       3P   P   show   1S:DAT   3NH-P   MPO   dune
       they show them to me at the dune

(28) na |kx'ae-a   **ku-a**   ng |aqra
       1S.SBJ   tell-?   3H.S-DAT   1S   refuse
       I have told him I refuse

(29) na |ae-a   **ba**
       1S.SBJ   send-?   2P:DAT
       I have sent for/after you

+ extended to benefactives

(30) n|aa   ǂoro   he |qaa   **ki-ka**
       see   moon   REL.S   shine   3NH-P:DAT
       ... see the moon which shines for them

(31) n!aen   kx'uu-a   **ku-a**   aanki
       adult   make-?   3H.S-DAT   food
       the adult prepares food for her

(32) na   au   sii   **ku-a**   ku
       1S   take   come   3H.S-DAT   3H.S
       I bring him for her

4 Taa (East !Xoon and West !Xoon varieties)

4.1 Structure of basic three+-participant construction

+ 1st term possibly unmarked, all other terms marked by several prepositions (some verb-preposition collocations lexicalized - recurrent with semantically opaque *saM*)[2]

[VERB$_n$ - OBJECT - PREPOSITION+ADJUNCT$_n$]

(I) comitative /*'aM* (West !Xoon), ǂ*aM* (East !Xoon)

(33) si |oe   si n‖au   **|'ang**   ☉**uru**
      1P.E   take.S:3 problem.3   COM:1S   offspring.P
      we got problems with my children (West !Xoon)

(II) multipurpose oblique *kM*/*tM*

(33) èh |àa   tshxûa tâ 'ǂnáꞎe   !ù.m 'é   ☉àa   **kì**   **g|qhúu**   **tíi'i**
      3ANA go.off snatch   take.out:3 eland.33ANA child.3   MPO:1   flywhisk.1   DEI:1
      He went off to snatch away Eland's child with this flywhisk. (East !Xoon, Traill n.d.)

- East !Xoon possibly with a pattern [*!qháã* 'give' - RECIPIENT - *kM*/*tM*-THEME] > secundative alignment (as in Ju|'hoan)

+ involves several "expected" ditransitives > horizontal alignment

(34) tú'ù   ń   bà |èhe   **kīsî**   **kã̄**   **'ã̄ã-sà**
      4.DEI   ?   IPFV   owe   MPO:1P.E   MPO:2   eat-NOM.2
      these ones owe us food (East !Xoon, Traill 1994: 54)

(35) ki   qhai   **ku**   ka   **kan**
      CONN   give   MPO:4   ?   MPO:2
      and gives it [food.2] to them [people.4] (West !Xoon)

(36) !qhôo **kē**   **ǂābe**   **kē**   **tâa**   **ǂàã**
      teach MPO:3   black.person.3   MPO:3   person.3   language.2
      teach the black man person's language i.e. !Xóõ (East !Xoon, Traill 1994: 88)

(37) !gōa **kān**   **kā**   **!ōo**
      lend MPO:1S   MPO:2   knife.2
      lend me a knife (East !Xoon, Traill 1994: 88)

4.2 Dedicated ditransitive constructions

- based on additional dative preposition *n*/*aM*, with two subtypes:
(I) 1st T slot without flagging, 2nd R slot with *n*/*aM* > indirective alignment:

[VERB - THEME - *n*/*aM*+RECIPIENT - PREPOSITION+ADJUNCT$_n$]

(39) sí |ūn   ☉àa   **|nān**
      CONN   give.S:1S child.3   DAT:1S
      ... and give my child (back) to me? (East !Xoon, Traill n.d.)

(40) ki   !aan   **n|ai**   #   **tuu**
      CONN   give.P:2   DAT:1   people.1
      and gives it (the berries) to the # people (West !Xoon)

(41) si   a   ‖xaan   mari   **n|ae**
      1P.E PST   show:2   goat.2   DAT:3
      we showed him the goat (West !Xoon)

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[2]   The language has a complex gender system with half a dozen agreement classes. These must be indexed morphologically on a number of agreement targets, among them all the prepositions. The class index refers to the prepositional object or its possessor, and is segmentally overt by a change of the final mora of the relevant element.

(II) 1st T slot with *kM/tM*, 2nd R slot with *n/aM* > tripartite alignment:

[VERB - *kM/tM*+THEME - *n/aM*+RECIPIENT - PREPOSITION+ADJUNCT_n**]**

(42) ‖qhāa **kān**   **|nān**
      show   MPO:5   DAT:1S
      show it to me (East !Xoon, Traill 1994: 117)

(43) !qháã **kū**   ǂnûm   ‖Gûli-tê |è   dtxó'lu |nàe   ǂ'á   sà̰ã
      give   MPO:[4ANA two   genital.2-P GEN:3 stench.3] DAT:3ANA COM:2 fat.2
      give him their stinking genitals [lit.: stench of their (D) genitals] with the fat (East !Xoon, Traill n.d.)

+ both (I) and (II) extended to benefactives

(44) āh sîi   sâa   ‖à̰be   ǂhùma |nā̰ĩ   ǂnā̰ĩ
      2S CONN   go   chop:3 cut.up:2ANA DAT:1D   1D
      and you go to chop [class-3 concord speech error] it [skin.2] up for us two (East !Xoon, Traill n.d.)

(45) n   si   n‖are ki   n!uri **n|aa**
      1S   IPFV tell MPO:1 story.1 DAT:2S
      I tell you a story (West !Xoon)

+ assumed history of *n/aM* explains deviation in T-R order from other Tuu languages
- *n/aM* likely derived from an earlier verb 'give' (cf. §2.2 for |Xam *n/a* 'give')
- implies earlier "core" serialization pattern: [VERB THEME give RECIPIENT]
- constituent order motivated by semantic attraction between theme-oriented verb and theme on the hand and 'give' and recipient on the other hand (> verb or noun movement unnecessary)
> dependent-marking pattern as a result, instead of head-marking in the rest of Tuu
- cf. Ju with syntactic alternation of COM/INSTR marker: either predicate component (grammaticalized "postverb" ?< verb 'be.with') or noun phrase component (preposition)
> historical cline: Tsumkwe Ju|'hoan > Ovambo-West Kavango !Xuun > Ekoka !Xuun

Ju variety	COM/INSTR as "postverb" head-marking	COM/INSTR as preposition dependent-marking	Source
Tsumkwe Ju|'hoan	|xòà	NO	Dickens (2005: 39-40)
Ovambo-West Kavango !Xuun	|'áán	|'áán (less frequent)	Heikkinen (1987: 30, 81-2)
Ekoka !Xuun	NO	|'àn	König and Heine (2001: 80, 162)

Table 3: Syntactic behavior of comitative~instrumental markers in Ju

(46) Tsumkwe Ju|'hoan (Southeast Ju)
a.   ha gú |xòà   ‖'àìsì kò   tjù
      3S [build_x INSTR_y] grass_y MPO house_x

b.   ha gú |xòà   tjù   kò   ‖'àìsì
      3S [build_x INSTR_y] house_x MPO grass_y
      He built the house with grass. (Dickens 2005: 40)

(47) Ovambo-West Kavango !Xuun[3] (Northwest Ju)
a.   n‖àqé '·ú-wá |'àán   !'ó   kè   kűńí !òhó
      men   [go_x-VE INSTR_y] forest_x MPO car   big_y
      Men go to forests with big lorries. (Heikkinen 1987: 30)

b.   hà !hűn hà |'àán   hà dsu
      3S [kill 3S] [INSTR 3S beak]
      it kills it with its bill (Heikkinen 1987: 30)

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[3]   Original transcription of nasalization, pharyngalization, and breathiness by means of diacritics has been changed in accordance with modern orthography towards word-final n, word-internal q, and word-internal h, respectively.

(48)   Ekoka !Xuun (Northwest Ju)
       mí má   !!àhà ‖hā   ǀˈàn   !!ò̃!!õ̃hò̃
       1S TOP [cut   meat] [INSTR knife]
       I cut the meat with the knife (König and Heine 2001: 80)

5 Summary

5.1 Family comparison

+ all languages with expected economical alignments - indirective or neutral, Taa with two additional uneconomical alignments (see Malchukov et al. 2007: 5-6) > horizontal in (35)-(37) and tripartite in (42), (43)

> at least 4, potentially all 5, possible alignment types in the family

+ constructions structurally diverse (< different history), but functionally homogeneous

Property	ǀXam type (I)	ǀXam type (II)	Nǁng	Taa type (I)	Taa type (II)
Animate R before inanimate T	YES	YES	YES	NO	NO
Recipient marked	NO	YES	YES	YES	YES
Theme marked	NO	NO	NO	NO	YES
Alignment	NEUTRAL	INDIRECT.	INDIRECT.	INDIRECT.	TRIPARTITE
Largely restricted to 'give'	YES	YES	YES	YES	YES
Extended to benefactives	(YES)	(YES)	YES	YES	NO
Other than ditransitives	NO	NO	NO	NO	NO

Table 4: Comparison of ditransitive constructions across the Tuu family

+ family as a whole corroborates that, compared to other semantic roles, recipient-benefactives, besides comitative-instrumentals, tend to develop specialized encoding first

5.1 The best ditransitives you can get

+ interplay between typological approach in terms of semasiological comparability (cf. Malchukov et al. 2007) and language-specific approach in terms of construction-oriented morphosyntactic description

> two extremes in typology:

(I) presumably majority case:

- language with several multi-argument constructions

- some of these constructions focus more or less on states of affairs which in typology are defined as "ditransitive" in semantic terms

- but these constructions also encode states of affairs which are less/not "ditransitive"

(II) rare "opposite" case (Ju ?and ...):

- only one multi-argument construction with MPO *kò*

> used for "ditransitive" states of affairs just as much as for all other multi-participant constructions > no ditransitive construction in narrow sense

+ Tuu languages in between these two extremes: "young" **dedicated** ditransitive constructions

> ideal (complex) signs: "one form - one meaning"

> trivial in the sense that they focus on most central ditransitive verb(s) 'give'

> but provide useful laboratory: which verbs are affected first in dedicated constructions and under what conditions

Glosses

ANA anaphoric pronoun, CONN clause connective, COM comitative, D dual, DAT dative, DECL declarative, DEI deictic, DIM diminutive, E exclusive, GEN genitive, IPFV imperfective, MPO multipurpose oblique, NOM nominalization, P plural, PF predication focus, PN proper name, PST past, R recipient, REL relative, S singular, SBJ subject, STAT stative, T theme, TOP topic, VE valency-external participant
Arabic number followed by S/D/P: person category
Arabic number without S/D/P:　　　agreement class

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