Grammatical Relations in Ts’ixa (Kalahari Khoe)

I. Introduction

1. The Speech Community

• 150-200 speakers
• Mababe and Khwai only
• claims of ties with Shua of Pandamatenga and Danisi of Gweta, but social interaction with Khwe of Khwai only (present)
• language is used as an everyday language by most adults in Mababe, and as working language in the surrounding hunting camps
• most children attending school only have a limited command of the language

2. Genealogical Classification (cf. Güldemann, forthc.):

<table>
<thead>
<tr>
<th>Kalahari Khoe</th>
<th>Tshwa:</th>
<th>Kua, Cua, Tsua, et al.</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>Shua:</td>
<td>Cara, Deti,</td>
</tr>
<tr>
<td>Ts’ixa</td>
<td>West</td>
<td>Kxoe:</td>
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<td></td>
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<td>G</td>
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<td></td>
<td>Naro:</td>
<td>Naro, Ts’aio, et al.</td>
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</tbody>
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3. Preliminaries and Research Questions

• Ts’ixa has intransitive and transitive verbs - does it also have ditransitive verbs?
• Ts’ixa, like other Khoe languages displays accusative alignment
• Case-sensitive Person-Gender-Number (PGN) markers, postpositions, word-order and the accusative marker ʔà are all properties that help identifying grammatical relations in Ts’ixa
• The valency of a verb may be in- or decreased by adding derivational suffixes to the verbstem
• All participants, core and oblique, may be head of a relative clause

Further questions:

• Does Ts’ixa display properties unusual for Kalahari Khoe languages?
• Can a better understanding of grammatical relations in Ts’ixa help assessing the languages’s genealogical relationship with its neighbours Shua and Kxoe?
II. Participant marking

1. Nominal gender marking in Ts’ixa

- portmanteau-morphemes encoding person, gender and number (PGN)
- form a paradigm with the language’s personal pronouns (cf. table 1, PGN-markers in brackets; on the grammaticalization of articles from demonstratives and/or personal pronouns, see Himmelmann 1997, and Heine & Kilian-Hatz 1997 for a discussion on Khwe)
- Ts’ixa only has PGN-markers for the 3rd person (table 2; some Khoe-languages like Khwe sometimes mark nouns for other persons as well, cf., e.g., Khwe /ûá-rà ‘I, the child’ (Kilian-Hatz 2008: 40))
- 2 paradigms (glossed as ‘I’ and ‘II’) marking nouns for different syntactic roles (see table 3)
- specific articles, marking nouns which are “identifiable in principle” (Himmelmann 1997: 103); generics, temporal adverbials followed by the locative/temporal postposition ka, place names and some NPs modified by a numeral remain unmarked
- clitics (attach to the last constituent of the NP they mark, see ex.1)

1. \[góè = dzà kò k’oò] = \[kò dá nó\]
cattle = PL.F:II IPFV eat.meat = PL.M:II IPFV come SUB
\[ʔé.sì kò nyú̃ń.\]
3SG.F.I IPFV whistle
‘When the cattle-eaters came, she whistled.’

Table 1: Personal pronouns and PGN-markers of Ts’ixa

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
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<tbody>
<tr>
<td>SG</td>
<td>I m tì</td>
<td></td>
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<tr>
<td></td>
<td>I f tì</td>
<td></td>
</tr>
<tr>
<td></td>
<td>II m tsá</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I f sá</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III m ʔé.mì (=m)</td>
<td>ʔé.mà (=mà)</td>
</tr>
<tr>
<td></td>
<td>II m ʔé.sì (=m)</td>
<td>ʔé.sà (=sà)</td>
</tr>
<tr>
<td></td>
<td>III f n ʔé.tsèrà (=tsèrà)</td>
<td>ʔé.tsèrà (=sèrà)</td>
</tr>
<tr>
<td></td>
<td>III f c ʔé.khórà (=khórà)</td>
<td>ʔé.khórà (=khórà)</td>
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<tr>
<td>DU</td>
<td>I m tsúm</td>
<td></td>
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<tr>
<td></td>
<td>I f súm</td>
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<tr>
<td></td>
<td>I c khúń</td>
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<tr>
<td></td>
<td>II m tsórò</td>
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<td></td>
<td>II f sórò</td>
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<tr>
<td></td>
<td>II c khórò</td>
<td></td>
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<tr>
<td></td>
<td>III m ʔé.tsèrà (=tsèrà)</td>
<td>ʔé.tsèrà (=sèrà)</td>
</tr>
<tr>
<td></td>
<td>III f c ʔé.khórà (=khórà)</td>
<td>ʔé.khórà (=khórà)</td>
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<tr>
<td>PL</td>
<td>I m ʔé</td>
<td></td>
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<tr>
<td></td>
<td>I f sé</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I c tsé</td>
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</table>
Table 2: The PGN-markers of Ts’ixa, attached to the noun \j\d\ ‘child’

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>F</th>
<th>C</th>
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<tbody>
<tr>
<td>I</td>
<td>I</td>
<td>II</td>
<td>I</td>
</tr>
<tr>
<td>SG</td>
<td>\j\d = \d\</td>
<td>\j\d = \d\</td>
<td>\j\d = \d\</td>
</tr>
<tr>
<td>DU</td>
<td>\j\d = ts\d\r\d\</td>
<td>\j\d = s\d\r\d\</td>
<td>\j\d = k\d\r\d\</td>
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<tr>
<td>PL</td>
<td>\j\d = \d\</td>
<td>\j\d = \d\</td>
<td>\j\d = d\d\</td>
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</tbody>
</table>

Table 3: Functional distribution of paradigms ‘I’ and ‘II’

<table>
<thead>
<tr>
<th>Clause-level</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>• S/A (ex. 2.a-b)</td>
<td>• O (ex. 2.b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• appositions (e.g. the right dislocated subject in (2.c))</td>
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<td></td>
<td></td>
<td>• predicate nouns (ex. (2.d))</td>
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</table>

<table>
<thead>
<tr>
<th>NP-level</th>
<th>I</th>
<th>II</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>• nouns headed by a postposition</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>• possessor in possessive constructions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• agreeing modifiers (adjectives, demonstratives) preceding their heads</td>
<td></td>
</tr>
</tbody>
</table>

S 2.a khoe = m k\d ts’\d.  
   person = SG.M:I IPFV limp  
   ‘The man limps.’

A 2.b khoe = m k\d kyxo\a-k’ox\u = m\u \n\ = k’o\o.  
   person = SG.M:I IPFV elephant-meat = SG.M:II ACC eat.meat  
   ‘The man eats elephant meat.’

2.c ts\d\ d\ n\g\ biye\-j\d\ k\d \j\u = s\u.  
   become.tired SEQ zebra-child MP one = SG.F:II  
   ‘[It] got tired, one of the zebra young.’

2.d \j\e.s\i ikhoe = s\a \j\e.  
   3SG.F:I person = SG.F:II COP  
   ‘She is a woman.’

2. Marking of oblique participants

Preliminary: Following Dixon’s (1997) Basic Linguistic Theory, I will treat all participants other than S and O as oblique. In Ts’ixa, this includes all participants headed by a post-position; they may be obligatory, like the comitative argument in ex.4.b-d, or optional, like the temporal adverbials in ex.3.e & ex.5.d. Note that the accusative marker ?à (see §IV) is not a postposition, as it does not act as head of the NP. Hence, it does not trigger marking by a PGN of series ‘I’ on the preceding noun.

ka - Multipurpose (‘MP’)
• tonally dependent on the preceding noun
• also marks relations within the NP, like the possessor of possessive constructions and the head of relative-like constructions
• T of ditransitive clauses:
  3.a tsá ?à tsé gérè khaà ?yúú kâ.
  2SG.M ACC 1PL.C FUT give food MP
  ‘We will give you food.’

• Instrument/Material
  3.b khoe=n k’oxú kâ k’uí-nà-hà k’áó = dzi kâ guní-nà-hà.
  person = PL.C:1 meat MP live-J-PFV.PST3 arrow = PL.F:1 MP hunt-J-PFV.PST3
  ‘The people lived on meat and hunted with arrows.’

• Agent of emphatic reflexives (‘by myself’, etc.)
  3.d ǀxóà = m ?a te dzi nè ky’áá.xuí-sí ná = dzi kâ.
  morning = SG.M:1 LOC 3PL.F:1 SEQ take.out-REFL DEM.REF = PL.F:1 MP
  ‘In the morning, the cows went out by themselves [were taken out by themselves].’

• Temporal adverbials
  3.e. thúú kâ tsé kó ?ñoó = m ?à ñà nò […]
  past MP 1PL.C:1 IPFV place = SG.M:1 LOC come SUB
  ‘In the past, when we used to come to the place […]’.

ǀxñà - Comitative (‘COM’)
  4.a k’aro=jù nè kâù göë = dzi ǀxñà.
  boy = PL.M:1 SEQ go cattle = SG.F:1 COM
  ‘The boys went out with the cattle.’
• obligatory after the reciprocal stems /ʔā̃-kù ‘fight’, /á̃-kù ‘meet’, and xá̃-kù ‘have sex’:

4.b thòò ʔū-ũũ xà=dzì ńiğè ʔā̃-kù ʔé.śì xòà.
‘The mothers (and their associates) fought with it.’

4.c thà júú tshéè sù-ã biyeé=dzì xòà ʔá̃-kù.
S. SBJ one day arrive-J zebra=PL:F:1 COM meet-RCPR
‘One day [the hyena] came to meet zebras.’

4.d ʔé.m kà ñàkhoè=sì kò tââ=ũũ ʔé.sì xòà xá̃-kù.
3sg.m:1 mp wife=SG:F:1 IPFV other=PL:M:1 COM have.sex-RCPR
‘His wife is cheating on him (sleeping with others).’

• sometimes the reciprocal-suffix -kù is added to the verbstem if the speaker wishes to attach an additional argument with |xòà

ʔà  -  Generic Locative/Proximal (‘LOC’)

• default locative

5.a ʔā̃=dzì ŋyè ġé.śì kà khoó=m ʔà nyáá.xù.
bone=PL:II all 3SG:F:1 MP skin=SG:M:1 LOC put
‘Put all the bones on her skin!’

• may mark proximal to contrast with the ablative/distal ŋkùa

5.b tí kà ʔā̃=m Mabábé ʔà haànà.
1SG MP child=SG:M:1 GN LOC EXIST
‘My son is at Mababe.’ (when speaker is at M. himself)

5.c tí kà ʔā̃=m Mabábé ŋkùa haànà.
1SG MP child=SG:M:1 GN LOC EXIST
‘My son is at Mababe.’ (when speaker is elsewhere)

• temporal adverbials

5.d tuú=m tuú-tââ sáó ʔà.
rain=SG:M:1 rain-IPFV.NEG winter LOC
‘It does not rain in winter.’

ŋkùa  -  Ablative/Distal (‘LOC’)

• derives from an adverbial meaning ‘there’ (*DEM ŋ + LOC kùa)

• Ablative:

6.a k̀ösò khoe=n k’uí-nà-hà ʔé.m, ʔórá=m ŋkùa.
but person=PL:C:I speak-J-PFV.PST3 3SG:M:1 big=SG:M:1 LOC
‘But the people spoke from him, the big one (talking about a hill).’
• Distal (in contrast with ʔà, see (5)b-c above):

6.b ̄óbé tshéè ʔ̄uxà ̄áń tshéè kare kô zeè ̈ká̄-̀ò=n̄kùà haänà=sè.
three day sometimes two day make.biltong IPFV spend.time camp = SG:M:I LOC EXIST = ADV
‘Three, sometimes two days [they] spent out in the camp, making biltong.’

ʔò - Directive/Dative (‘DIR’)

7.a thà nè ̣glāi-kù ̄á̄né=m ʔò.
S.SBJ SEQ run-RCPR home = SG:M:I DIR
‘[They] ran home together.’

• sometimes found contrasting with ǀxè (distal reading)

7.b tí kò nguá=m ǀxè káâù.
1SG: I IPFV house = SG:M:I toward go
‘I walk towards the (visible) house.’

7.c tí kò nguá=m ʔò káâù.
1SG: I IPFV house = SG:M:I DIR go
‘I walk to the house.’

• Dative with the verbs khaà ‘give’ and xaroò ‘give food’

7.d tí gérè sá ʔò khaà tsóò.
1SG: FUT 2SG:F DIR give medicine
‘I will give medicine to you.’

ǀxè - Directive/Dative

• sometimes found contrasting with ʔò (proximal reading, see ex.7.b-c above)
• also found meaning ‘on’ and ‘near/next to’

8.a ̣ḡiñi=sì ̣ tè xalasí=m ǀxè ̣ábu-à ngeè.
fly = SG:F:I PRF glass = SG:M:I next.to fly-J pass
‘The fly flew past the glass.’ (lit. passed next to the glass in a flying manner)

8.b ̄áń mëkórm tì mūû-a-tà tshaá=m ǀxórm ǀxè.
two canoe 1SG: I see-J-PFV.PST1 water = SG:M:I side next.to
‘I saw two canoes next to the river.’

• marks human referents for general affectedness

8.c n̄í=m ̣ū-sî-nà-tà Pità=m ǀxè?
‘What happened to Peter?’

8.d ḡl̄ôé=sì jûû kàê ʔòrá=sì ǀxè.
tortoise = SG:F:I angry IPFV big = SG:F:I at
‘He is angry at the big one.’
III. Word order

- highly flexible (cf. table 4), pragmatically determined
- focus-slot before the subject (may be occupied by any participant)
- elements known within the discourse tend to be placed after the verb and may be dropped completely

Table 4: Word order in 4 Ts’ixa texts

<table>
<thead>
<tr>
<th></th>
<th>Ts’ixa (203 sentences)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOV</td>
<td>98</td>
</tr>
<tr>
<td>OSV</td>
<td>25</td>
</tr>
<tr>
<td>SVO</td>
<td>80</td>
</tr>
</tbody>
</table>

1. Core Participants

Table 5: Pragmatic implications of word order in Ts’ixa

<table>
<thead>
<tr>
<th></th>
<th>unmarked or S-focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOV</td>
<td></td>
</tr>
<tr>
<td>OSV</td>
<td>O-focus</td>
</tr>
<tr>
<td>SVO</td>
<td>known/topical O</td>
</tr>
</tbody>
</table>

SOV: unmarked and subject focus

9.a \( \hat{n}i = \hat{m} \) \( \hat{h}i\hat{m}\)-\( \hat{i}-\hat{n}\)-\( \hat{t}a \) ?à \( \hat{\text{'a}}\hat{n}\)-\( \hat{n}\)-\( \hat{t}a \)?

what = SG.M:I do-REFL-J-PFV.PST1

‘What happened?’

9.b \( m\hat{a} = \hat{m} [\text{Joseph}] = m\hat{a} ?à \hat{\text{'a}}\hat{n}\)-\( \hat{n}\)-\( \hat{t}a \)?

who PN = SG.M:II ACC hit-J-PFV.PST1

‘Who hit Joseph?’

9.c \([\text{Maxwell}] = \hat{m} [\text{Joseph}] = m\hat{a} ?à \hat{\text{'a}}\hat{n}\)-\( \hat{n}\)-\( \hat{t}a \).

PN = SG.M:I PN = SG.M:II ACC hit-J-PFV.PST1

‘MAXWELL hit Joseph.’ or “Maxwell hit Joseph.’

SVO: known / (potentially) topical objects

10.a \( \hat{n}i = \hat{m} \) \( \hat{h}i\hat{m}\)-\( \hat{i}-\hat{n}\)-\( \hat{t}a \) [Peter] = \( \hat{m} \) \( \hat{x}e \) ?à

what = SG.M:I do-REFL-J-PFV.PST1 PN = SG.M:I to

‘What happened to Peter?’

10.b \( \hat{m} = \hat{m} \) \( \hat{\text{'a}}\hat{n}\)-\( \hat{n}\)-\( \hat{t}a \) ?à \( ?\hat{a}\hat{a} = \hat{m} \) ?à

PN = SG.F:I hit-J-PFV.PST1 3SG.M:II ACC face = SG.F:I LOC

‘Mary hit him in the face.’
OSV: object focus

11.a ńĩ=mà ʔà ʔé.ńí gıré ąá.ķà?
WHAT=SG.M:II ACC 3PL.C:I FUT bring
‘What are they going to bring?’

11.b kyxóa-kˈoxú ʔé.ńí gıré ąá.ķà.
elephant=meat 3PL.C:I FUT bring
‘They will bring ELEPHANT MEAT.’

2. Oblique participants

• unmarked position: SXV as in ex.12 in answer to an unrestricted Wh-question, in particular if the oblique participant is an obligatory argument, not an adjunct (however, XSV and SVX occur as well in unmarked contexts, see below)

12.a ńĩ=mà hĩi-sì-nà-tà?
what=SG.M:I do-REFL-J-PFV.PST1
‘What happened?’

PN=SG.M:I PN=SG.M:I COM GN LOC
ʕáé-kù-nà-tà.
meet-RCPR-J-PFV.PST1
‘Maxwell met Joseph at Khwai.’

• adverbials of location and time tend to be placed clause-initially or clause-finally

GN DIR 3SG.M IPFV go
‘He goes to Mababe.’

3SG.M:I go-J-PFV.PST2 GN DIR
‘He went to Khwai.’

Sunday MP 3SG.M:I work-ITER-J-PFV.PST3
‘He often worked on Sunday.’

13.d tsé kyˈóá-hà tsheē ŋỳë.
1PL.C go.out:J-PFV.PST3 day all
‘We went out every/all day.’

• if a clause occurs with both an adverbial of location and an adverbial of time, the adverbial of location tends to be placed clause-initially, while the adverbial of time is placed clause-finally (14.a); however, exceptions to this tendency are not uncommon (ex.14.b)
14.a [Khwai] ʔó ʔé.m ʔáâ-ʔá-há ʔá.ká.ká.tshéè
GN DIR 3SG.M:1 go-J-PFV.PST3 yesterday
‘Yesterday he went to Khwai.’

14.b ʔé.m ʔáâ-ʔá-há [Khwai] ʔó ʔá.ká.ká.tshéè
3SG.M:1 go-J-PFV.PST3 GN DIR yesterday
‘Yesterday he went to Khwai.’

• oblique participants may be focused:

15.a maá ǀxòà sà ǀʔé-kù-nà-tà [Khwai] ŋkùà?
who COM 2SG.F meet-RCPR-J-PFV.PST1 GN LOC
‘Whom did you meet at Khwai?’

PN = SG.M:1 COM 1SG meet-RCPR-J-PFV.PST1
‘I met JOSEPH.’

15.c Maáxùà sá ʔé.m ǀxòà ǀʔé-kù-nà-tà?
where 2SG.F:1 3SG.M:1 COM meet-RCPR-J-PFV.PST1
‘Where did you meet him?’

15.d [Khwai] ŋkùà tí ʔé.m ǀxòà ǀʔé-kù-nà-tà.
GN LOC 1SG 3SG.M:1 COM meet-RCPR-J-PFV.PST1
‘I met him AT KHWAI.’

• The unmarked position of oblique participants (other than adverbials of location and time) in transitive clauses is hard to determine, as it varies even in elicitation contexts making use of unrestricted Wh-questions. The same accounts for the arguments of semantically ditransitive predicates (ex.16)

16.a ní=mà ʔá tsá hû-ʔá-tà?
what = SG.M:II ACC 2SG.M do-J-PFV.PST1
‘What did you do?’

Recipient (=O) Theme (=OBL) S V

16.b Políkí=mà ʔá ʔáâ ká tí khaâ-nâ-tà.
PN = SG.M:II ACC money MP 1SG give-J-PFV.PST1
‘I gave money to Politics.’

Recipient (=OBL) S Theme (=O) V

16.c tí ká taxí=sì ʔá tí ʔáâ ʔá khaâ-nâ-tà.
1SG MP sibling.e = SG.F:1 LOC 1SG money ACC give-J-PFV.PST1
‘I gave money to my elder sister.’
(Situation: You went to town and come back with a dress for your sister, which you are now showing to me.)

Theme (=OBL)                    Recipient (=O)  S
16.d  kuú = m  meé = m  kà  tí  kà  kúñè = sà  ?à  tí
       dress = SG.M:I  DEM.DIST = SG.M:I  MP  1SG  POSS  sister = SG.F:II  ACC  1SG
kyúú-a-ma-nà-tà.
buy-J-BEN-J-PFV.PST1
‘I bought that dress for my sister.’

In 14 instances of the sentence ‘I gave money to Politics’ as answer to an unrestricted Wh-question, recorded with 4 speakers, 9 displayed the word order Recipient-Theme-Subject-Verb, no matter whether Recipient, Theme or both were encoded as oblique.

IV. The accusative marker ?à
• Obligatory for pronominal and PGN-marked objects in SOV and SVO; in SOV, the glottal stop is sometimes omitted, but the accusative marker is clearly perceivable in the lengthening of the final vowel -à of the PGN-marker

17.a  [Blesswell] = m  kò  bukà = sà  (?)à  bdlà = rè?
       PN = SG.M:I  IPFV  book = SG.F:II  ACC  read = Q
‘Is Blesswell reading the book?’

       PN = SG.F:I  read-J-PFV.PST1  book = SG.F:II  ACC
‘Mary read the book’

• Optional in OSV \rightarrow contrastive reading

18.a  maá  ?à  tsá  /’án-nà-tà?
       who  ACC  2SG.M  beat-J-PFV.PST1
‘Whom did you beat?’

18.b  k’aro = mà  tí  /’án-nà-tà?
       boy = SG.M:II  1SG  beat-J-PFV.PST1
‘I beat the boy.’

18.c  ?abá = mà  tsá  /’án-nà-tà?
       dog = SG.M:II  2SG.M  beat-J-PFV.PST1
‘Did you beat the dog?’

       no  dog = SG.M:II  1SG  beat-J-PFV.PST1  NEG  boy = SG.M:II  ACC  1SG  beat-J-PFV.PST1
‘No, I did not beat the dog, I beat the boy.’
• Unmarked nouns obligatorily receive ʔà if they correspond to the feature [+human]

19. Gjoxà = m ɲkùa ɲuxùa tsá kò khoe ʔà kuñi k’uí kò = sè.
   GN = SG.MI LOC sometimes 2SG.M IPFV person ACC hear speak IPFV = ADV
   ‘At G|oxa-Hill, you can sometimes hear people speaking.’

• otherwise, ʔà-marking on [-human] referents not marked by a PGN-marker always leads to a contrastive reading (‘X and not something else’):

20.a !xaò kò ʔabá péè.
   hippo IPFV dog chase
   ‘A hippo is chasing a dog.’

20.b !xaò kò ʔabá ʔà péè.
   hippo IPFV dog ACC chase
   ‘A hippo is chasing a dog (and not something else).’

→ ʔà-marking relates to the topic-potential of O (compare, e.g., Iemmolo 2010, Dalrymple & Nikolaeva 2011); compare also the quite similar behaviour of the topic marker wa in Japanese (Kuno 1972)

V. Valency Changing Operations

1. Reducing Valency

1.1. The (agentless) Passive

• passive suffix -i ∼ -e + a particle ʔè which is obligatory with all non-perfective TAM markers

21.a sexáí júl kà kò júl-é ʔè.
   spear only INST IPFV kill-PASS PASS
   ‘[It] (the steenbok) is killed with only a spear.’

21.b ʔé.dzì xú = dzì ná = dzì kò n/goá-é ʔè.
   3PL.F:1 thing = PL.F:1 DEM.REF = 3PL.F:1 IPFV cook-PASS PASS
   ‘Those things are cooked.’

21.c ʔyáñ/-ʔéřè kò !huú-í ʔè nyaá-í ʔè.
   baobab-rope IPFV flay-PASS PASS twist-PASS PASS
   ‘Baobab-rope is flayed (from the tree) and twisted.’

• with the perfective/anterior-suffixes, the passive suffix replaces the juncture
• patient of a transitive clause appears as S
• no agent may be added (compare Kxoe, cf. Kilian-Hatz 2008: 151, and Nama, cf. Hagman 1977: 81); addition of an agent appears to be possible in other Kalahari Khoe languages, e.g. in Shua and G|ui (Hirosi Nakagawa, p.c.)
22.a [Maxwell] = m̂ kxyô=mà ʔà ǁdò- nâ-tà.
PN = SG.M:I  elephant = SG.M:II  ACC  shoot-J-PFV.PST1
‘Maxwell shot the elephant.’

22.b kxyô = m̂ ǁdò- è-tà.
elephant = SG.M:I  shoot-PASS-PFV.PST1
‘The elephant was shot.’

* kxyô = m̂ ǁdò- è-tà  [Maxwell] = m̂ kâ.
Attempted: ‘The elephant was shot by Maxwell.’

• Only the theme of the verb khaâ ‘give’ may be S of a passive construction, not the
recipient; more research will be needed to determine whether this holds true for other
semantically ditransitive verbs as well

23.a tí ʔò k’oxú=mà ʔà  [Maxwell] = m̂ khaâ- nâ-tà.
1SG  DIR  meat = SG.F:II  ACC  PN = SG.M:I  give-J-PFV.PST1
‘Maxwell gave the meat to me.’

23.b k’oxú = m̂ tí ʔò khaâ- è-tà.
meat = SG.M:I  1SG  DIR  give-PASS-PFV.PST1
‘The meat was given to me.’

*tí k’oxú = m̂ kâ khaâ- è-tà.
Attempted: ‘I was given the meat’

• Sometimes used with intransitive motion verbs (compare Khwe, cf. Kilian-Hatz 2008:
151-2)

GN  DIR  IPFV  go-PASS  PASS  Friday  MP
‘One may go to Maun on Friday.’

• reconstructed as *-he for Proto-Khoe and Proto-Khoekhoe, *-e for Proto-Kalahari Khoe
(cf. Vossen 1997: 360)

1.2 The Reflexive/Anticausative

• Reflexive: agent and patient are not differentiated

25.a tí kô mûû-sí.
1SG:1  IPFV  see-REFL
‘I see myself (in the mirror).’

25.b ꜋û = m̂ samb-si-nâ-tà.
child = SG.M:I  wash-REFL-J-PFV.PST1
‘The boy washed himself.’
• Anticausative: S corresponds to O of the underlying transitive, A is neither stated nor implied

26.a nǐ = mà  tsá  kò  huǐ?
what = SG.M:II  2SG.M  IPFV  do
‘What are you doing?’

26.b nǐ = mì  kò  huǐ-sì?
what = SG.M:II  IPFV  do-REFL
‘What is happening?’

• developing into a passive marker with inanimate nouns; it is not entirely clear to which extend this construction differs from “ordinary” passives with -i ~ -e (+ʔè)

27.a sū = mì  huǐ-sí-ná-tá  (ʔè.)
work = SG.M:II  do-REFL-J-PFV.PST1  (PASS)
‘The work was done.’

27.b sū = mì  huǐ-é-tá  (ʔè.)
work = SG.M:II  do-PASS-PFV.PST1  (PASS)
‘The work was done.’

• in Khwe, passives formed with the reflexive marker -can allow for the addition of an agent; this is not the case in Ts’ixa

2. Increasing Valency

2.1. Causative

• three productive causative suffixes: -kà, -káxù and -xù
• causatives of intransitive verbs:

28.a sū = mì  kudí-ná-tá.
work = SG.M:II  end-J-PFV.PST1
‘The work is finished.’

1SG  work = SG.M:II  ACC  end-CAUS-J-PFV.PST1
‘I finished the work.’

28.c ñéè = sí  kò  dáò
fire = SG.F:II  IPFV  burn
‘The fire is burning.’

1SG  IPFV  litter = SG.M:II  ACC  burn-CAUS
‘I am burning the litter.’
• Causatives of transitive verbs:
  29.a khoe = n kô ts’ixá-dań ʔàå.  
    person = PL:C I PFV T.-tongue get.to.know  
    ‘The people learn Ts’ixa.’

  (causee is omitted, original O retains its status)
  29.b ti kô ts’ixá-dań ʔàå-kà.  
    1SG PFV T.-tongue get.to.know-CAUS  
    ‘I teach Ts’ixa.’

  (causee acts as O, original O is added in a complement clause)
  29.c tí kô Djéménì ?ò kâü nò ti gérè khoe = nà ?à ʔàå-kâxà  
    1SG IPFV Germany LOC go SUB 1SG FUT person = PL:C:II ACC get.to.know-CAUS  
    maá.thà ti kà k’ui = sì kô k’ui-è tà.  
    how 1SG POSS speak = SG:F:I IPFV speak-PASS COMP  
    ‘When I go to Germany I will teach people how to speak my language.’

  → More research will be needed to determine whether the causative of a transitive verb may result in a double object construction in which causee and original O are treated the same

  • reduplication is a productive strategy to derive causatives
  30.a xalásí = sì /’ôè-hà.  
    glass = SG:F:I become.full:J-PFV.PST3.  
    ‘The glass is full.’

  30.b tí kô xalásí = sà ?à /’ôè,’ôè  
    1SG IPFV glass = SG:F:II ACC become.full:CAUS  
    ‘I fill the glass.’

2.2. Benefactive: introducing a beneficiary
  • the suffix -ma derives from a verb *-ma ‘to give’ (cf. Vossen 1997: 351), which is still productive in some Kalahari Khoe languages (e.g., Tshwao, G|ui). The source for this derivation is a multiverb construction with -ma as V2; it is therefore linked to the verbstem by the juncture morpheme
  • the beneficiary is treated as O, the theme is encoded as oblique by the multipurpose postposition ka

    3SG:M:II ACC 1SG ask-J-PFV.PST1 3SG:M:I 1SG ACC meat INST buy-J-BEN COMP  
    ‘I asked him to buy meat for me.’

VI. Relative
  • the multi-purpose postposition ka also acts as relative marker
  • it follows the head of the relative clause which may not receive a PGN-marker
  • the PGN is placed at the end of the relative clause
32.a  ʔsóokhóè kà Khwáì ?à kò ṇyúú = m. Ṙmékà ṇkùú
healer  MP GN LOC IPFV stay = SG.M:1 GN LOC
kò ky’óá.
IPFV come.from
‘The healer who lives at Khwai comes from Omega.’

32.b  kúú kà sá ṇáá-sí-nà-hà = m t’ú’ ?è.
dress  MP 2SG.F dress-REFL-J.PFV.PST3 = SG.M:II beautiful COP
‘The dress you wear is beautiful.’

• the head of the relative clause may be postposed

33.  ʔlóé = sì mūũ-rè ṇqání = sì kò hí = sà ?à xúú ṇkà.
tortoise = SG.F:1 see-IPFV.NEG toad = SG.F:1 IPFV do = SG.F:II ACC thing MP
‘The tortoise does not see the thing the toad is doing.’

• relative clauses without ka are possible if the relative clause is headed by its S or O

34.a  sá tè mūũ-rè ṇxání = dzì ṇmè = dzì ṇdá = mà ?à tè
2SG.F:1 PRF see-Q lion = PL.F:1 DEM.DIST = PL.F:1 way = SG.M:II ACC PRF
pérè-ʔò = dzì ?à.
jump-LOC = PL.F:II ACC
‘Did you see that lion which crossed the way?’

34.b  sá tè mūũ-rè ṇkho = mà ?à tì ṗ’ám-ʔò = mà ?à
2SG.F:1 PRF see-Q man = SG.M:II ACC 1SG hit-J.PFV.PST2 = SG.M:II ACC
‘Did you see the man whom I hit?’

• oblique participants may act as head of a relative clause; they are referenced in the relative clause by the referential pronoun ʔtì

35.  ʔákà tóbló kà ṇtí kà tì gérè ṗ’ám-ʔò = mà ?à ṇxání = sà ?à
bring gun MP REF MP 1SG FUT shoot = SG.F:II ACC lion = SG.F:II ACC
‘Bring the gun with which I will shoot the lion.’

• all participants of a semantically ditransitive clause may act as head of a relative clause; recipient and theme may both be treated like O, but not at the same time, meaning either recipient or theme will be treated as oblique and be referenced accordingly

36.a  ṗ’ám kà Polítíkí = m ṗò tì ṇkha-ná-tà = mà
money MP PN = SG.M:1 DIR 1SG give-J.PFV.PST1 = SG.M:II
‘The money which I gave to Politics.’

36.b  ṇkho kà ṗ’ám = m kà tì ṇkha-ná-tà = mà
money MP money = SG.M:1 MP 1SG give-J.PFV.PST1 = SG.M:II
‘The man whom I gave the money to.’
36.c  khoe  ká  tí  /?dà=mà  ?ì  ?ò  khaà-nà-tà=mà
       man  MP  1SG  money = SG.M:II  ACC  REF  DIR  give-J-PFV-PST1 = SG.M:II

The man whom I gave the money to.’

• The beneficiary of a benefactive construction is treated like a normal O:
37.  tsá  ?and-hà-rè  ?é.si  ká  k’dàkhóè=mà  ?à  ?é.si  kò
       2SG.M  know:J-PFV.PST3-Q  3SG.F:I  MP  husband = SG.M:II  ACC  3SG.F:I  IPFV

‘Do you know her husband whom she is cooking the food for?’

• if the relative clause is headed by the theme, a benefactive construction with -ma is no longer possible, and the beneficiary has to be introduced by the dative postposition /xè:
38.  tsá  ?and-hà-rè  ?yàú  ká  ?é.si  ká  k’dàkhóè=m  /xè  ?é.si  kò
       2SG.M  know:J-PFV.PST3-Q  3SG.F:I  MP  husband = SG.M:II  DAT  3SG.F:I  IPFV

‘Do you know the food she is cooking for her husband?’

VII. Summary

Table 6: PGN-marked ([ + specific]) core participants in Ts’ixa (accusative alignment)

<table>
<thead>
<tr>
<th>PGN</th>
<th>Postposition</th>
<th>ACC ?à</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>‘I’</td>
<td>-</td>
</tr>
<tr>
<td>A</td>
<td>‘I’</td>
<td>-</td>
</tr>
<tr>
<td>O</td>
<td>‘II’</td>
<td>-</td>
</tr>
</tbody>
</table>

→ word order only acts as identifier for grammatical relations with non-PGN-marked ([specific]) nouns; if none of them is marked by the accusative-topic marker ?à, we are dealing with neutral alignment, i.e., S, A and O are treated the same e.g., ex.20.a

Table 7: Possible marking for participants of semantically ditransitive verbs (secundative or indirective alignment)

<table>
<thead>
<tr>
<th>PGN</th>
<th>Postposition</th>
<th>ACC ?à</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>‘I’</td>
<td>-</td>
</tr>
<tr>
<td>A</td>
<td>‘I’</td>
<td>-</td>
</tr>
<tr>
<td>O</td>
<td>‘II’</td>
<td>-</td>
</tr>
<tr>
<td>Recipient/Beneficiary</td>
<td>‘I’</td>
<td>‘II’</td>
</tr>
<tr>
<td>Theme</td>
<td>‘I’</td>
<td>‘II’</td>
</tr>
</tbody>
</table>

Note that Recipient/Beneficiary and Theme cannot simultaneously be treated like O; hence, double object constructions are not possible (they feature in the data of one speaker, but were rejected by all others)
So does Ts’ixa have ditransitive verbs?

- **Kittilä (2006):** ditransitives are verbs with two arguments coded like the patient of a monotransitive verb (O)
- **Malchukov et al. (2010):** a ditransitive construction has an agent (A), a recipient argument (R) and a theme argument (T) - all should be part of the valency frame of the verb
- **König & Heine (2010):** there are no ditransitives in Ju (Kx’a), as a verb of this language can have no more than two arguments; additional participants - no matter whether R or T - are treated as adjuncts

→ I suggest that Ts’ixa aligns with Ju in having no real ditransitives. Either R or T have to be encoded as oblique, whereas - despite of obvious preferences, especially with the verb khaà - it is left to the speaker whether he wants to encode R or T as oblique (ex.16.b-c)

### VIII. Grammatical relations in Ts’ixa from a genealogical and areal perspective

#### 1. PGN-marking

- the PGN-system has been reconstructed for proto-Khoe by Vossen (1997: 349)
- he considers the paradigm ending in -a (paradigm ‘II’, the accusative paradigm in Ts’ixa) as the more basic one; this is rejected by Güldemann (2004)
- all Kalahari Khoe languages have at least two paradigms of PGN-markers, the one ending in -a and the one ending in -i or zero
- Shua, like other Eastern Kalahari Khoe languages, only marks few selected nouns (personal names) for grammatical gender; here, the two paradigms are only visible in the language’s personal pronouns. Following Himmelmann (1997) and the scenario Heine & Kilian-Hatz (1997) suggest for Kxoe, the personal pronouns in Shua have not grammaticalized into articles (like in Ts’ixa and Kxoe) and eventually noun markers (like in Naro and Khoekhoe); I therefore assume, following Güldemann (2004, p.c.) that the lack of nominal gender marking in Shua is not the result of loss (as suggested by Vossen 1997)
- Shua and Kxoe both show a clear distinction between PGN-markers that mark arguments of the clause (‘II’) and arguments marking nominal dependents (‘I’), cf. table 8
- the Kalahari Khoe language Gǀui (cf. table 9) has three paradigms: nominative, accusative, and genitive (Nakagawa 1993)
Table 8: Functions of paradigms ‘I’ and ‘II’ in Shua, Khwe, and Ts’ixa

<table>
<thead>
<tr>
<th>Shua I</th>
<th>Shua II (-a)</th>
<th>Khwe I</th>
<th>Khwe II (-a)</th>
<th>Ts’ixa I</th>
<th>Ts’ixa II (-a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• S in subordinate and embedded clauses • before a postposition other than the accusative ?à • possessor in possessive constructions</td>
<td>• S, O, IO in main clauses • predicate nouns</td>
<td>• before a postposition • possessor in possessive • constructions</td>
<td>• S, O, IO • predicate nouns</td>
<td>• S • before a postposition other than the accusative ?à • possessor in possessive constructions</td>
<td>• O • right dis-located S • predicate nouns</td>
</tr>
</tbody>
</table>

Table 9: Case-sensitive PGN-markers in G|ui (adapted from Nakagawa 1993)

<table>
<thead>
<tr>
<th></th>
<th>Nominative</th>
<th>Accusative</th>
<th>Genitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG m</td>
<td>-bì</td>
<td>-mà</td>
<td>-mì</td>
</tr>
<tr>
<td>f</td>
<td>-sì</td>
<td>-sà</td>
<td>-sì</td>
</tr>
<tr>
<td>DU m</td>
<td>-tsèra</td>
<td>-tsèra</td>
<td>-tsèra</td>
</tr>
<tr>
<td>f</td>
<td>-sèra</td>
<td>-sèra</td>
<td>-sèra</td>
</tr>
<tr>
<td>c</td>
<td>-khòra</td>
<td>-khòra</td>
<td>-khòra</td>
</tr>
<tr>
<td>PL m</td>
<td>-ǜ̇</td>
<td>-são̊</td>
<td>-ǜ̇</td>
</tr>
<tr>
<td>f</td>
<td>-zì̇</td>
<td>-zì̇</td>
<td>-zì̇</td>
</tr>
<tr>
<td>c</td>
<td>-nì̇</td>
<td>-nà̊</td>
<td>-n̄</td>
</tr>
</tbody>
</table>

→ Nominative and Genitive paradigm are almost identical (exptions SG.M and DU.C)

- Functionally, Nakagawa’s “genitive” paradigm corresponds to paradigm ‘I’ in Khwe and Shua; his “accusative” paradigm corresponds to paradigm ‘II’ in Ts’ixa
- Ts’ixa displays the same case-distinction as G|ui, though the functions of Nakagawa’s “genitive” and “nominative” are carried out by one and the same paradigm (formally corresponding to Nakagawa’s “nominative”)

Table 10: Functional properties of PGN-marking in Ts’ixa, compared to Shua, Kxoe and G|ui (cf. Nakagawa 1993, 2013, p.c.)

|                                   | Shua | Kxoe | G|ui | Ts’ixa |
|-----------------------------------|------|------|-----|-------|
| PGN-markers as specific articles or noun markers | n    | y    | y   | y     |
| accusative alignment of PGN-paradigms | n    | n    | y   | y     |
| distinction independent - dependent nouns | y    | y    | y   | n     |

Note: Formally, the paradigms of Ts’ixa correspond to Shua and G|ui, but not to Kxoe
2. Ditransitive verbs

- Ts'ixa has no ditransitive verbs in the strictest sense, i.e., no double object constructions are possible (cf. Kittilä 2006)
- Ts'ixa does not even appear to have ditransitive verbs in the narrower sense, as at least one participant - recipient/beneficiary OR theme - has to be encoded as oblique; which one is left to the speaker and displays considerable variation in my data
- Other Khoe language do have “real” ditransitives, i.e., verbs allowing for double object constructions (e.g., Khoekhoe, Hagman 1977; Kxoe, Kilian-Hatz 2008; Gǀui, Nakagawa, p.c.; Shua, my data; Tshwao, Jeffrey Wills, p.c.)

In Namibian Khwe, both recipient and theme may be marked by the object marker ʔà (39.a), no referent is marked (39.b), or only the recipient is marked (ex. 39.c). There is no example in which any participant would be marked by the instrument postposition ka or any other postposition, such as the dative/benefactive.

39.a Màtìaci-m à /'dò à tì xàrò-á-tà.
  Matthew-3SG.M ACC money ACC 1SG give-J-PST2
  ‘I gave money to Matthew.’ (Kilian-Hatz 2008: 63)

39.b Á /'é-hè xà-má áta ||hùáxu-i-hà nò.
  DEM fire-3SG.F DEM-3SG.M thus take.away-PASS-PST1 CONJ
  ‘One (of us) has taken that fire away from him.’ (Kilian-Hatz 2008: 63)

39.c Tìyò nũkà tì yà-á-tà nò, tcá tì-è kwèè xó vé!
  then there 1SG come-J-PST2 CONJ 2SG.M 1SG-ACC refuse thing NEG
  ‘You can’t refuse this to me, when I come here.’ (Kilian-Hatz 2008: 63)

- Shua appears to follow a similar pattern, whereas my data has yielded no example in which both O and IO were marked. In (40.a) and (40.b), all participants go unmarked, whereas in (40.c), the IO is marked by ʔà.

  1SG 3SG.M:II ACC ask-for-J-PERF COMP 3SG.M:1 1SG meat buy-J-BEN
  ‘I asked him to buy meat for me.’

40.b tsám ke hĩ.à tca ?yáá khàà.
  1DU.M IPFV FUT 2SG.M food give
  ‘We will give you food.’

40.c aa-na taa-la tshao khàà.
  come-CONJ 1SG-ACC hand give
  ‘Come and give me a hand.’
• ||Ani, a dialect of Kxoe, marks the theme of a beneficiary-construction derived with the suffix -\textit{ma} with the postposition \textit{ka} (note that ||Ani cross-references ‘my child’, but not ‘food’ on the verb):

41. \textit{tí} \textit{ũ} \textit{ũ} = \textit{hê} \textit{tí} \textit{ũũ-á-má-sí-tê} \textit{ʔũũ} \textit{kà}.

1SG POSS child = SG.F:II 1SG buy-J-BEN-SG.F-PRS food OBL

‘I buy food for my child.’

• As has already been noted (cf. König & Heine 2010), ditransitive verbs are absent in the Kx’a family where either recipient/beneficiary or theme is marked with a pre-verbal oblique marker \textit{kV} (42.a-b):

42.a \textit{Dà’ámá} \textit{jàn} \textit{ˈàn} \textit{ha} \textit{bá} \textit{kò} \textit{mârĩ}.

child good give N1/2 father part money

‘The good child gave his father money.’ [Ju’hoan (Dickens 2005:40)]

42.b \textit{ārǐ} \textit{jài} \textit{yā} \textit{glöò} \textit{āqri} \textit{zààn} \textit{ki} \textit{dzòò}.

woman PROG give man OBL water

‘The woman gives the man water.’ [Nlaqriaxe (Berthold, p.c.)]

→ With respect to ditransitive constructions, Ts’ixa does not show the same patterns as other languages of the Khoe family, though more data from ||Ani might display some similarities. Considering the wide functional range of an apposition \textit{ka} as both an oblique marker and a marker of dependency relations in the NP, influence from a non-Khoe language may be considered.
References


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Abbreviations

I  gender-number series I
II gender-number series II
1  1st person
2  2nd person
3  3rd person
A  agent
ACC  accusative
ADV  adverbial
ASSOC  associative
BEN  benefactive
C  common gender
CAUS  causative
COM  comitative
COMP  complementizer
COMPL  completive
CONJ  conjunction
COP  copula
D  different
DEM  demonstrative
DIM  diminuitive
DIR  directive
DIST  distal
DU  dual
EMPH  emphatic
EXIST  existential
F  feminine
FUT  future (posterior)
GN  geographical name
ID  identification marker
IPFV  imperfective
ITER  iterative
J  juncture
LOC  locative
M  masculine
MP  multi-purpose
NEG  negation
O  object
OBL  oblique
PASS  passive (agentless)
PFV  perfective
PERF  perfect
PN  personal name
POSS  possessive
PROG  progressive
PST1  same day past (anterior)
PST2  recent past (anterior)
PST3  remote/general past (anterior)
PL  plural
Q  question
RCPR  reciprocal
REF  referential
REFL  reflexive
SBJ  subject
SEQ  sequential
SG  singular
SUB  subordination marker
TOP  topic